



A Weekly Journal of Pharmacy and the Drug-trade.

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### OUR COLONIAL ISSUE.

THE Colonial Issue of THE CHEMIST AND DRUGGIST will be published on Saturday, April 27. It is intended to extend and foster business relations with the British Colonies and India. Already these take three-fifths of our annual exports of medicines, the value of this share now being over a million per annum. Besides, there are millions in other goods handled by our readers, such as chemicals, sundries, perfumery, and soaps. The circulation of the issue of April 27 should be taken advantage of by every business-house in the home trade, who should secure space as early as possible by writing to the Publisher, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

### PRICE-LISTS AND CIRCULARS.

THE CHEMIST AND DRUGGIST is the pioneer of the method of distributing price-lists and circulars to the trade in its Summer and Winter Issues. The system has been in force for more than thirty years, and is as effective as it is popular. Distribution to the best buyers in the world is ensured, and that is not the case when price-lists are sent singly by post—e.g., reports received from Australasia show that "tons" of price-lists and dutiable matter on which the tax has not been paid are destroyed by the authorities. The Summer and Winter Numbers of THE CHEMIST AND DRUGGIST containing such price-lists and circulars are not so treated, because the demands of the Customs are complied with, hence the copies are promptly delivered to the advantage of advertisers. The next opportunity for sending out price-lists and circulars will be with the Summer Number to be published on July 27, 1907. The Publisher invites up-to-date firms to write to him at the Head Office for conditions and terms.

### Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

THE news in this issue is up to March 27.

"XRAYSER" comments upon the work of Berthelot and Berthollet (p. 483).

SOME good formulæ as followed in the Newcastle Infirmary are printed on p. 496.

A GROUP PHOTOGRAPH of the inter-collegiate football champions is reproduced on p. 497.

JALAP is still deteriorating in quality. Mr. Joyce communicates some analytical results (p. 488).

A CHEMIST'S WIDOW in London has been fined under the Pharmacy Act for not labelling carbolic acid properly (p. 479).

WE give a description of Kallitype-printing which those of our readers who do a photographic trade will find useful (p. 494).

WE deal more fully this week with the Patents Bill (p. 485), which is being opposed on the ground of interference with trade (p. 477).

THE BOARD OF INLAND REVENUE states that a picture of the type reproduced on p. 486 makes a medicine, otherwise nondutiable, liable to duty.

A PHARMACY BILL has been introduced into the German Parliament which is not at all to the liking of pharmacists there. It is epitomised on p. 486.

TARAXACUM has gone up in price lately on account of exceptional demand from the United States, which has been created by a patent-medicine proprietor (p. 486).

THE new Japanese Pharmacopœia is being enforced far too early for European exporters, as the English translation is not yet available. We protest (p. 487).

THE estimation of linalol in essential oils is the subject of a note by Mr. Simmons, in which he controverts Parry and Bennett and describes Brulez's process of assay (p. 496).

DR. LEONARD DOBBIN's remarks to students deserve the attention of all who are preparing for examination. Our "Corner" prizes go to Messrs. Blay and Wakelin (p. 470).

SINCE our correspondence-pages went to press we have received additional letters on the question raised by Messrs. Elliman, Sons & Co., and they will be dealt with next week as far as space permits. See p. 502.

OUR PARIS CORRESPONDENT communicates interesting recollections of the late Professor Berthelot, which we illustrate with a photograph that adds point to the remarks about the professor's indifference to dress (p. 474).

THE text of the International Agreement as to pharmacopœial unification of potent drugs has been published, and is given on p. 489. In an editorial note we show how it will affect familiar British preparations (p. 484).

MR. ALEXANDER CROSS, M.P., declines to explain why he has withdrawn his block to the Pharmacy Bill. There is growing uneasiness in some quarters about the whole subject of pharmacy legislation, it being felt that the best interests of registered chemists are being sacrificed (p. 477).

BUSINESS has slackened down in view of Easter. Cod-liver oil has declined as the result of improved fishing. Codeine and salts, clove oil, and saffron are higher. Foreign citric acid and eucalyptus oil are firmer. Cinchona was lower at Amsterdam on Tuesday. Japan wax is also cheaper (p. 498).

DR. EMIL FISCHER discussed the polypeptides at the Chemical Society's meeting last week. His work takes us towards the synthetic beef-steak (p. 490). At the annual meeting of the Society, Sir William Ramsay was elected President in succession to Professor Meldola. The latter discoursed on the position of chemical research in Great Britain (p. 491).

### PHARMACEUTICAL FORMULAS.

THE exemption of known, admitted, and approved remedies from medicine stamp-duty requires that the formulas for the preparations shall be published in a well-known book of reference, or their composition otherwise disclosed. "Pharmaceutical Formulas" was the first book, after the B.P., approved by the Board of Inland Revenue, and any of our readers who may wish their formulas published in it should send them to the Editor, 42 Cannon Street, E.C., each formula being written on a separate piece of paper.

## Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

### REPORTS.

THE powder distributed to students on February 27 contained 5 parts by weight of zinc hydroxycarbonate, 4 of ammonium aluminium sulphate (ammonia alum), and 1 of ammonium chromate. The calculated composition of such a mixture is :

|                  |     |     |     |     |       |
|------------------|-----|-----|-----|-----|-------|
| Zn               | ... | ... | ... | ... | 28.7  |
| Al               | ... | ... | ... | ... | 2.4   |
| NH <sub>4</sub>  | ... | ... | ... | ... | 4.0   |
| CO <sub>3</sub>  | ... | ... | ... | ... | 8.8   |
| SO <sub>4</sub>  | ... | ... | ... | ... | 16.9  |
| CrO <sub>3</sub> | ... | ... | ... | ... | 7.6   |
| H <sub>2</sub> O | ... | ... | ... | ... | 21.7  |
| OH               | ... | ... | ... | ... | 9.9   |
|                  |     |     |     |     | 100.0 |

The powder also contained, as impurities, recognisable traces of calcium, magnesium, and potassium.

Samples of the powder were distributed to sixty-five students, and thirty-four reports were sent in for examination. All of our correspondents were successful in detecting the presence of zinc and of the chromic radical. The failures in the detection of the other constituents of the powder were : (a) Metallic radicals—aluminium, 7; ammonium, 2. (b) Acid radicals—carbonic, 1; sulphuric, 3. No fewer than nine students failed to observe the abundant evolution of water when the powder was heated in a dry test-tube.

The high marks obtained in the present analysis by the greater number of our correspondents indicate that the exercise did not present any features of special difficulty. The failures to detect aluminium were more numerous than might have been expected, but the quantity present was relatively small, and some precautions were necessary in order to prove its presence. When the hydrochloric-acid solution of the powder was treated with hydrogen sulphide in the ordinary course of the analysis, the chromic-acid radical was reduced with formation of chromic salt. Then, when the precipitated sulphur had been removed by filtration and the excess of hydrogen sulphide had been boiled off from the filtrate, the addition of ammonium chloride and ammonia (excess of the latter being driven off by boiling) precipitated a mixture of aluminium and chromic hydroxides. Upon this mixed precipitate various methods of separation were employed by different students, but the final precipitation of aluminium as hydroxide depended either upon the treatment of a boiling solution in caustic alkali with excess of ammonium chloride, or upon the acidulation of the same solution, in the cold, with dilute hydrochloric acid, followed by the careful neutralisation of this acid solution with ammonia. Both of these final methods of precipitation required care. In the first method, if ammonium chloride was not added in excess, the whole of the caustic alkali was not disposed of in the way illustrated by the equation  $\text{KOH} + \text{NH}_4\text{Cl} = \text{KCl} + \text{NH}_3 + \text{H}_2\text{O}$ , and the excess of caustic alkali was still sufficient to retain all the aluminium in solution. Even when ammonium chloride was added in excess, the aluminium was not necessarily precipitated until the liberated ammonia had been driven off

by boiling, since aluminium hydroxide is quite appreciably soluble in ammonia. In the second method, the solubility of aluminium hydroxide in ammonia was likewise an important matter, and it was necessary to avoid adding more ammonia than was required to neutralise the excess of hydrochloric acid that had been added. Several failures to detect aluminium appear to have been due to insufficient attention to these details. A few students who had ascertained that the precipitate formed by hydrogen sulphide in the hydrochloric-acid solution of the powder was due to the chromic-acid radical, and not to the presence of any metallic radicals belonging to the copper and arsenium groups, avoided a separation of the aluminium and chromic hydroxides by neutralising the original hydrochloric-acid solution of the powder (after boiling off carbonic anhydride) with ammonia, whereby the aluminium was precipitated as hydroxide, while the chromium remained in solution as chromate.

The metallic radicals present as impurities in the powder were present in exceedingly small quantities only. We were not able to confirm the presence of the noteworthy traces of the hydrochloric radical reported by several students.

From time to time we note, with regret, the resort by a few students to a practice which cannot be deprecated too strongly—that, namely, of reporting reactions which they did not observe, and which did not and, as a matter of fact, could not take place. Descriptions of strongly marked potassium reactions contained in a few reports sent in on the present occasion were quite unjustified by the fact that the powder did contain recognisable traces of potassium, and obviously they owed their origin to the stimulus lent to the imagination by the presence of a soluble chromate in the powder. Even the skilled analyst would require to exercise the greatest circumspection in endeavouring to describe accurately, if called upon to do so without trying them, the reactions which would be exhibited by mixtures of known composition: the folly of students in permitting themselves to be led away in so misguided a manner as to attempt to describe the reactions of mixtures of unknown or of only partially known composition without trying them should be too obvious to require comment.

### PRIZES.

The first prize has been awarded to

VICTOR L. BLAY, Claremont House, Highgate, Walsall.

The second prize has been awarded to

A. F. WAKELIN, The Cedars, Maney, Sutton Coldfield.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first-prize.

*Second Prize.*—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

### MARKS AWARDED FOR ANALYSES.

#### 1. Correspondents who are unqualified:

|                            |    |                 |     |     |    |
|----------------------------|----|-----------------|-----|-----|----|
| Victor L. Blay (1st prize) | 98 | Query           | ... | ... | 92 |
| A. F. Wakelin (2nd prize)  | 97 | G. F. H. C.     | ... | ... | 91 |
| A. D. N.                   | 96 | Kevin           | ... | ... | 88 |
| Socius                     | 96 | Esprit de Corps | ... | ... | 87 |
| Spes                       | 95 | Norseman        | ... | ... | 86 |
| Concilio et Labore         | 94 | Bronko          | ... | ... | 81 |
| J. E. B.                   | 94 | Micros          | ... | ... | 81 |
| A. S. Keys...              | 93 | Mebe            | ... | ... | 80 |
| G. S. P.                   | 93 | Novis           | ... | ... | 80 |
| N. G. G.                   | 93 | Cymro           | ... | ... | 77 |
| James Beattie              | 92 | Henricus        | ... | ... | 76 |
| Cuniculus                  | 92 | F. P.           | ... | ... | 60 |
| Kaolin                     | 92 | Viking          | ... | ... | 39 |

2. *Correspondents who are qualified, or who have not indicated that they are unqualified:*

|                      |    |                     |    |
|----------------------|----|---------------------|----|
| Boiling Point ... .. | 95 | Nil Desperandum ... | 76 |
| Gun Eye ... ..       | 86 | Tamot ... ..        | 97 |
| Gus ... ..           | 82 | Vox Minoris ... ..  | 87 |
| Jaser ... ..         | 75 | Xylem ... ..        | 91 |

#### TO CORRESPONDENTS.

**SOCIUS.**—Note that aluminium hydroxide, like chromium hydroxide, is distinctly soluble in excess of ammonia. The quantity of aluminium present was more than a trace.

**SPEs.**—In three different places you describe reactions "characteristic of a chromium salt" when it is clear that you refer to a chromate. A chromate is not a "chromium salt" in the sense commonly understood.

**CONCILIO ET LABORE.**—The quantity of the carbonic radical present could not be described correctly as a trace. The effervescence on the addition of a dilute acid to the powder was very noticeable.

**J. E. B.**—You include zinc in your summary of metals found, but you have omitted, inadvertently no doubt, to give any account of your treatment of the filtrate which contained the zinc.

**A. S. KEYS.**—Your own experiments showed almost beyond doubt that the hydrochloric radical which you found was present as impurity in the sodium carbonate you had used. Do not boil after adding sodium phosphate as a test for magnesium: the precipitate of ammonium magnesium phosphate is more soluble in hot water than in cold.

**G. S. P.**—The tests for potassium which you describe would appear to indicate that potassium was present in the powder in notable quantity, whereas only a trace was present.

**N. G. G. and JAMES BEATTIE.**—You do not say that you boiled the solution obtained on treating the mixture of aluminium and chromic hydroxides with potassium hydroxide, but if you had not done so both would have remained in solution, and a separation would not have been effected.

**QUERY.**—We were not able to confirm the traces of manganese and of the hydrochloric radical which you reported as impurities. The quantity of magnesium present was exceedingly small.

**G. F. H. C.**—We are at a loss to explain the supposed trace of lead which you report, but are disposed to attribute it to impurities derived from a previous analysis in consequence of insufficient care in washing out test-tubes.

**KEVIN.**—The formation of a blue mass on heating the mixture of aluminium and chromic hydroxides with cobaltous nitrate on charcoal was not sufficient to establish the presence of aluminium. A separation of the aluminium and the chromium should have been carried out.

**ESPRIT DE CORPS.**—The ferric-chloride test for an acetate should have been applied to a portion of the sodium-carbonate extract previously neutralised with hydrochloric acid. Its application to the original powder was incorrect analytical procedure.

**NORSEMAN.**—The reactions of arsenium which you observed may probably have been due to impurity in some reagent, as the powder did not contain arsenium. Note that a precipitate of zinc ferrocyanide is only very pale yellow in colour, not orange.

**MICROS.**—The blue colour with cobaltous nitrate on charcoal was probably due to the nitrate itself, and the green colour to its action on the zinc compound present in the powder. We do not understand why you boiled the powder with sodium carbonate and filtered, and then tested the precipitate for metallic radicals—including potassium and sodium!

**CYMRÖ.**—When the acidulated solution of a chromate is changed into a chromic salt by the action of hydrogen sulphide, a precipitate of sulphur is produced, and its production should be duly reported.

**F. P.**—You describe certain reactions which you did not observe. Thus, a solution of a chromate could not give you either a green precipitate with potassium hydroxide, soluble in excess and re-precipitated on boiling, or a yellow precipitate with potassium iodide.

**VIKING.**—It was not sufficient to assert that the ammonia precipitate contained chromium and a "white gelatinous precipitate of aluminium." The evidence upon which these conclusions were based should have been furnished. The supposed precipitate of calcium citrate simply consisted of calcium sulphate.

**BOILING POINT.**—Evaporation of a solution to dryness after treatment with hydrogen sulphide is best conducted in a porcelain dish, and the ignition of the residue may then be carried out on platinum foil. Ignition in a test-tube is not a very satisfactory operation.

**GUN EYE.**—The precipitate which you mistook for manganoous hydroxide really consisted of zinc sulphide. It owed its formation to your dissolving a precipitate of zinc sulphide in hydrochloric acid and then—without boiling out the liberated hydrogen sulphide, as you should have done—adding excess of sodium hydroxide to the solution. The symbol for zinc is Zn, not ZN.

**GUS.**—Your report is of a very fragmentary description. Important sections of it appear never to have been written—at any rate, they have not come to hand.

**NIL DESPERANDUM.**—The palm of the hand is, to us, an entirely novel piece of apparatus upon which to test a powder for ammonium salts by treatment with moistened lime. If the epidermis stands the treatment, however, we need not object, so long as you do not employ dry lime and a high temperature. Under the latter conditions animal tissues yield their own nitrogen in the form of ammonia, and confusion might arise.

**VOX MINORIS.**—It was not correct to describe the powder as totally insoluble in water. A considerable proportion of it dissolved easily in cold water. The sulphuric radical present was much more than a trace.

**XYLEM.**—It would seem that no amount of killing can finally extinguish the belief that mercuric chloride gives a red precipitate with soluble bicarbonates if the latter are pure. Note that zinc ferrocyanide is decomposed by potassium hydroxide with the formation of soluble salts, and that therefore, on your adding potassium ferrocyanide to a solution of zinc containing excess of potassium hydroxide, the imaginary precipitate of zinc ferrocyanide did not make its appearance. Concentrated hydrochloric acid should not be used to test the solubility of a precipitate supposed to be barium sulphate.

#### THE ANALYTICAL TOURNAMENT.

The results of this month's exercise have somewhat altered the positions of those competitors who stood below the second place in last month's list. The competition is keenly contested, and is bringing out excellent work, although what the end may be it is, of course, impossible to say. The analysis announced last week was the concluding one of the tournament series. The following nine competitors have sent in reports upon each of the five analyses to date, and have obtained aggregate marks above 400:

|                      |     |                 |     |
|----------------------|-----|-----------------|-----|
| Tamot ... ..         | 485 | J. E. B. ... .. | 452 |
| A. D. N. ... ..      | 472 | Micros ... ..   | 450 |
| Boiling Point ... .. | 463 | A. F. W. ... .. | 447 |
| V. L. B. ... ..      | 461 | Kaolin ... ..   | 401 |
| Socius ... ..        | 458 |                 |     |

#### DENIGÈS' TEST FOR CITRATES.

With reference to the letter of "Abel Scholar" on this subject which appeared in the *C. & D.* for February 23, p. 313, it is true that a solution of an oxalate, if not too dilute, gives a white precipitate when boiled with the acid solution of mercuric sulphate used by Denigès as part of the test for a citrate. This precipitation takes place, however, without the addition of potassium permanganate, which reagent must be added as an oxidising-agent before the characteristic white precipitate appears in the case of a citrate. The risk of mistaking an oxalate for a citrate is, therefore, somewhat remote. When an oxalate is known to be present, it should be got rid of before testing for a citrate. This may be done conveniently by completely oxidising the oxalate with potassium permanganate in presence of hot dilute sulphuric acid. The test for citrate may then be applied in the usual way. Perhaps one or two students to whom we printed replies in this column in February will note that the presence of the oxalate in last month's exercise was the cause of the precipitate which they obtained on boiling with the acid solution of mercuric sulphate, but that no precipitate was formed when the solution containing the oxalate was moderately dilute.

**FOOTBALL.**—The Advertising Department of Messrs. C. E. Fulford, Ltd., played an Association game with the Sales Department at Roundhay on Saturday, March 23, the former winning by seven goals to two. Subsequently the directors entertained the teams and other members of the staff at the Mansion House, when the repast was followed up by a musical programme, contributed by Messrs. A. H. Peake-Jones, James Lunham, Arthur Steel, Percy A. G. Williams-Bailey, and Miss Marie Barrowclough. Mr. Frank H. Fulford presided, and other directors present were Mr. Stuart A. Hirst and Mr. F. W. Boyer.

## English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Brevities.

The Reading Grocers' Association has started a new campaign in regard to proprietary articles sold by grocers. A minimum protection profit of 15 per cent. is demanded.

Miss M. E. Davies has resigned the dispensership at the workhouse of the Cardiff Union, and Mr. Henry Jenkin Owen, chemist and druggist, has been appointed. Mr. Owen was dispenser at Charles Street Dispensary, and his salary is to be 30*l.* per annum, instead of 40*l.* as stipulated.

On application to the London Bankruptcy Court for his discharge by Mr. T. C. Schmitz, formerly a sponge-merchant, whose failure, however, had no connection with that business, it was reported that his assets would pay 6*d.* to 8*d.* per pound. The order was granted, subject to suspension for six years.

At the Zancig performance in Bournemouth last week a well-known pharmacist gave Mr. Zancig a paper containing the atomic weights of carbon, nitrogen, mercury, sodium, and oxygen, and asked that Mme. Zancig should write three of the five on the blackboard. Within half a minute she had written carbon 12, nitrogen 14, and sodium 23.

At a meeting of the Middlesex County Council on Tuesday it was admitted by the Chairman of the General Purposes Committee, in reply to a question by Mr. W. S. Glyn-Jones, that proceedings under the Sale of Food and Drugs Acts are taken by the inspector without consultation with any committee or any of the principal officers of the Council!

### Easter Holidays.

The offices of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., will be closed from Thursday afternoon, March 28, until Tuesday morning, April 2.

The warehouses, offices, and works of Hearon, Squire & Francis, Ltd., 38 and 40 Southwark Street, London, S.E., will be closed from Thursday evening, March 28, until Tuesday morning, April 2.

### The Meat-extract Prosecution.

The hearing of the action brought against Edgar Burrill by the Incorporated Institute of Hygiene for selling packets of "Ox-Cup" and "Ju-Vis" to which a false trade-description was applied, in contravention of the Merchandise-Marks Act (see *C. & D.*, March 16, p. 408), was to have been continued before Mr. Paul Taylor on Monday, March 25, at the Marylebone Police Court, but Mr. Horace Avory, K.C., and Mr. Cunningham Glen, defending counsel, were both unable to attend, and the summonses were adjourned until next month. Mr. Muir, the counsel for the prosecution, pointed out that his clients had been put to considerable expense in bringing witnesses, and asked that they should be indemnified in the matter of costs for that day. The Magistrate agreed.

### Birmingham Notes.

It is probable that a course of chemical technology will be given at the Birmingham University during the next session.

Sir James Sawyer, M.D., at the Birmingham Butchers' Association dinner said we are all working up from worms through monkeys into angels.

Mr. George Cadbury has issued an emphatic denial to the reports that he makes a handsome income from the village of Bournville, and that when the leases fall in his descendants will be multi-millionaires. Mr. Cadbury offers 1,000*l.*, on behalf of charity, to anybody who can prove the contrary. He has, he says, given the estate to the nation, and it is merely managed by the trust on behalf of the Charity Commissioners, to whom every penny of income has to be accounted for.

### Duties on Catalogues and Price-lists.

At a meeting of the Council of the Birmingham Chamber of Commerce a letter was read from the Colonial Secretary in reply to a communication regarding the duties imposed by the Governments of Australia and South Africa on trade catalogues and price-lists imported into those colonies. Lord Elgin intimated that the parties to the South African

Customs Union have agreed to a modification of the previously-existing rule in the following terms:

Ordinary catalogues and price-lists imported through the post weighing less than 8 oz. will not be charged with duty, but in the case of South African firms sending large quantities of catalogues or advertisements through the post duty will be charged upon them even if weighing less than 8 oz. The Natal, Transvaal, and Orange River Colony Governments and the Southern Rhodesia Administration have further agreed to forgo the 6*d.* delivery-fee hitherto collected on catalogues and price-lists imported through the post. The Cape Government has made a like concession with regard to similar articles imported by book or letter post.

### Therapeutical Society.

A meeting of this Society was held at the Apothecaries' Hall, Blackfriars, E.C., on the afternoon of Tuesday, March 26, when Dr. W. E. Dixon read a paper on "How Drugs Produce their Effects," and Dr. Nestor Tirard one on "Opium in the Treatment of Pneumonia." We understand that the committee of the Society has recommended that no reports of the meetings should appear until they have been approved by representatives of the Society. This is a condition with which THE CHEMIST AND DRUGGIST cannot comply.

### East Anglian Notes.

Mr. G. C. Maynard, chemist, Wymondham, has been elected a vice-president of a local bowling club. This Easter many East Anglian pharmacists anticipate throwing their first wood of the season.

The lambing season is in full swing in this district, which is tantamount to stating that shepherds and flockmasters have now all been supplied with the varied assortment of drugs and chemicals they severally affect. Mel Ægyptiacum, oil of brick, and others still live.

### Notts Notes.

Mr. W. J. Scattergood, chemist and druggist, is opening a shop in Woodborough Road, Nottingham.

The principal chemists in the centre of Nottingham have decided to close at seven o'clock instead of eight o'clock, commencing on April 1.

Mr. S. Cook, chemist, Hyson Green, has again secured the contract of the Nottingham Guardians for drugs, etc., to be supplied to Bagthorpe Union and Dispensaries for the next six months.

On Thursday, March 21, the Nottingham School of Pharmacy held their annual supper and smoking-concert in the Mikado Café, Long Row. There were about fifty present. Mr. R. Fitzhugh, J.P., occupied the chair, and was supported by Messrs. S. Royce (Principal), F. Ross Sergeant, Thos. Freeman, A. E. Beilby, C. J. Carr, G. J. R. Parkes, W. Lee, and others. It was a quite successful occasion. "The School" was given by the Chairman, who spoke well of its success. Mr. Royce acknowledged. The other speakers were Messrs. A. H. G. Boggis, A. E. Beilby, and F. C. Parkinson.

### Sheffield Notes.

Mr. J. F. Eardley, pharmaceutical chemist, has been elected captain of the Hallamshire Golf Club.

Mr. G. T. W. Newsholme was on Monday last returned as a member of the Sheffield Board of Guardians, at the top of the poll for the St. Peter's Ward. There were six candidates for three seats, and Mr. Newsholme was well ahead of the next highest on the list of successful candidates. A feature of the election has been the return of a lady doctor to each of the two local Boards of Guardians.

A smoking-concert, promoted by the Sheffield Pharmaceutical and Chemical Society, was held at the King's Head Hotel on March 21. Mr. H. Antcliffe (President) wielded the chairman's hammer, and there was a good attendance of officers, including Messrs. H. G. Williams (Hon. Secretary), J. B. Pater, G. Squire, J. G. Jackson, R. Douglas, J. T. Appleton, P. Carr, John Evans, F.I.C., F.C.S., and F. W. Whitworth, but the number of members, especially of the younger ones, was rather disappointing. The programme included songs by Messrs. A. Conroy, B. Tilbrook, Ferguson Garner, and Whitehurst, recitations by Mr. Dalton (of Messrs. Sissons Bros., Hull), and 'cello solos by Mr. F. Skinner.

## Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Successes.

In the honours-list of the Royal College of Surgeons, Ireland, for the session 1906-7 the names of the following pharmaceutical chemists occur: Descriptive anatomy, first-class certificates, Mr. T. Mather Thomson and Mr. F. Warren; second-class certificate, Mr. W. V. Johnston. In practical anatomy Mr. T. Mather Thomson obtained a first prize (2*l.* and medal), and Mr. F. Warren a second prize (1*l.* and certificate); Mr. W. V. Johnston obtained a first-class certificate.

### False Pretences.

Francis Brock, described as a chemist, was charged at Belfast Assizes on March 26 with obtaining a quantity of Mellin's food and Mellin's biscuits from Messrs. Mellin, London, with intent to defraud. Mr. Hanna, B.L., for the defence, said prisoner had been in the prison hospital for fits, and had not yet recovered. He came from England to Belfast in 1897 with his wife and family, and was employed by "a leading chemist's firm in the city." He behaved honestly, and showed great ingenuity and a facility for inventing medicine-preparations. Eventually he started for himself making these preparations, and after a time he lost his customers and fell away from the paths of honesty. Mr. Justice Andrews passed sentence of two months' imprisonment, to date from committal.

### Contract Items.

Among the contracts entered into since our last issue are the Belfast, Magherafelt, Waterford, Ballymahon, Castleblaney, Carrickmacross, and Kilmallock.

The Local Government Board have sanctioned the contracts for medicines and appliances entered into by the Clones, Newtownards, Downpatrick, Newry, and Omagh Boards of Guardians, although the tenders accepted were not the lowest, Irish firms being given the preference.

Messrs. Ben Clarke & Son, Belfast, sued the Guardians of Carrickmacross Union, at the Carrickmacross Quarter Sessions, for 2*l.* 12*s.* 8*d.*, for unreturned empties. After hearing the evidence, his Honour Judge Craig said the whole doubt in the case was whether the Guardians were advised of the credit given for empties returned. He was satisfied that they had been, but whether the bottles disappeared or not, it was clear that Messrs. Clarke never got them. He gave a decree for the full amount, 2*l.* 12*s.* 8*d.*, with 1*l.* 3*s.* witnesses' expenses, and 14*s.* 9*d.* costs.

The Local Government Board have written to the Bandon Board of Guardians with reference to the award of the medical-requisites contract to Messrs. Boileau & Boyd. The Local Government Board pharmacist recently inspected Messrs. Boileau & Boyd's stock of instruments, and reported that it did not include any articles marked with the maker's name, as required by the regulations. The firm have undertaken to comply with the Board's requirements. As the Guardians did not wish to risk losing the recoupment, the contract for both medicines and surgical-requisites was given to Messrs. Sumner & Co., Liverpool.

## Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Personal.

Mr. Wm. Peddie, D.Sc., Lecturer in Natural Philosophy in the University of Edinburgh, has been appointed to the Harris Chair of Physics in University College, Dundee, as successor to Professor Kuenen.

### Aberdeen.

Mr. R. Leslie, Ph.C., Vice-President of the Aberdeen Pharmaceutical Association, is a director of a local fishery company, and was one of the speakers last week at the banquet following a launch.

Owing to continued ill-health, Mr. Wm. Wilson, who has represented Messrs. Wm. Paterson & Sons, Spring Garden,

in the North for the past few years, has been obliged to resign his position. Mr. W. G. Brown, of the staff of Wm. Davidson, Palmerston Road, has succeeded him.

The finances of the Aberdeen Dispensary are in a bad way, and the deficit is accumulating year by year. Recently the managers have made an appeal to the public for support, but chemists in the city feel that in many cases medicines are given to persons who are in a position to pay for them. Perhaps the Aberdeen Pharmaceutical Association might take the matter up.

### Edinburgh.

Mr. James S. B. Heddle, Stromness, is taking over the business lately carried on by Mr. R. B. Wilkie, 16 Rodney Street, Edinburgh.

One of the bicycles in the motor and cycle show last week was prominently ticketed as having been sold to a well-known Edinburgh pharmacist.

Messrs. John T. Coats & Co., pharmaceutical chemists, etc., 64 Tolbooth Wynd, Leith, are giving to Leith Hospital half the purchase-money of each bottle of their cough-mixture.

William Henry Wilde, who said he was a chemist, residing in Gladstone Terrace, was last week sentenced by Bailie Neill to twenty-one days' imprisonment for thefts from a fellow-lodger and others.

### Edinburgh Chemists' Golf Club.

The opening match, Captain v. Hon. Secretary, will take place on Wednesday, April 3, at 2 p.m., over the Baberton Course at Juniper Green. Train leaves Caledonian Station, Princes Street, at 1.30 p.m.

### Glasgow.

Mr. John Gilchrist, chemist and druggist, has purchased the Oatlands Pharmacy, 630 Rutherglen Road, carried on by Drs. McLauchlan and Aitken.

Mr. Peter Macmaster, chemist and druggist, has been appointed manager of the branch shop of Mr. Sutherland Hudson, chemist and druggist, Dumbarton.

In one of the windows of Mr. James Abbott, chemist and optician, New City Road, there is an excellent display of optical goods. Testimonials from grateful customers are also shown.

Mr. James Cairncross, not "Cameron" as erroneously printed last week, is one of the directors of Messrs. Lorimer & Moyes, Ltd. He has represented the late firm for over thirty years and will continue his journeys as formerly.

### Nicotine in Tobacco Smoke.

We quoted from an Edinburgh paper in our issue of March 23, p. 436, a brief report of a statement by Mr. J. Rutherford Hill in regard to the effect of cigarette-smoking on the heart. The quotation did not do justice to Mr. Hill's remarks, which were addressed to boys, and are scientifically interesting. In the course of his speech he said:

The German chemist Melsens had found in ordinary tobacco-smoke one-seventh of the amount of the nicotine present in the original. Professor Dixon, M.D., of Cambridge, found that the smoke from a cigarette contained one-half of the amount of nicotine present in the original cigarette. An Edinburgh medical friend had recently made some investigations in which he found that if a boy inhaled three ordinary draws of cigarette-smoke it is sufficient to so paralyse the vagus nerve as to cause the heart to bound off like a racehorse. One can imagine what injury must accrue to the lad who smokes often ten or fifteen cigarettes in one day, when three whiffs so powerfully influence the great central organ of the body on which its whole well-being depends.

**CALCIUM CARBIDE IN RUSSIA.**—On March 13 a Congress was held, at the Bureau of the Minister of Trade and Industry, of various departments and business men, to consider the proposed reduction of the Russian import-duty on carbide of calcium to 70 copecks per pood. The object of the Congress was to encourage the use of acetylene gas in Russia and make a market for calcium carbide, and foster its production on a large scale in the country. It was, however, shown that while the "Elektritchestvo," the Warsaw carbide factory, produces only from 11,000 to 15,000 poods per annum, it can produce 50,000 poods, and the Congress decided that the duty should not be reduced.

## French News.

(From the "C. & D." Paris Correspondent.)

**A PROFESSORSHIP OF BIOLOGICAL CHEMISTRY.**—The Council of the Paris University held a special meeting last Saturday for the purpose of taking a decision regarding a proposal to found a professorship of Biological Chemistry at the Paris School of Pharmacy. It was decided that the professorship should be created, the City of Paris undertaking to meet the expense.

**THE SMALL-POX SCARE.**—Re-vaccination is still going on apace in Paris, and one of the results is that lymph has run short, in spite of the fact that its price has been greatly increased—even doubled in some cases. The English physicians here have, in several instances, imported lymph from London during the past week. It is satisfactory to note that there is no sign so far of the epidemic developing.

**SPA EXHIBITION.**—An international exhibition of bathing requirements and hygienic appliances is to be held at Spa during July and August. Class II. includes hygiene, medicine, and pharmacy, and the section is presided over by Monsieur A. Derneville and Mons. Charles Buchet (directors of the Pharmacie Centrale of France). M. A. Girard, 20 rue Saint-Lazare, Paris, is Commissaire-Général of the Exhibition.

**A MEDICINE-CHEST SCANDAL.**—Quite a scandal has occurred at St. Malo, owing to 35 medicine-chests out of 107, prepared for the vessels of that Brittany port about to sail for the cod-fishing at Newfoundland, having been found defective. The medicine-chests in question were supplied by M. Gousse, a St. Malo pharmacist, and, owing to the serious complaints that had been made, the local authorities named a Commission to inquire into the matter. On examining the medicines contained in the chests, this Commission found that a good many of the ingredients were not up to standard quality. It is stated, for instance, that camphorated alcohol was made with methylated spirit, and the iodoform had been mixed with a white powder, probably boric acid, which proved insoluble in ether. According to one report, the pharmacist admits having supplied adulterated medicaments, and there is every probability that he will be prosecuted. Political opinion seems to have something to do with the matter, and a group of people made a demonstration against M. Gousse's pharmacy last Monday evening.

**THE FUNERAL OF M. AND MME. BERTHELOT.**—On Thursday, March 21, the formal announcement was made that the funeral of M. and Mme. Berthelot would take place at their family grave at Neuilly-sur-Seine; but the following day, at a Cabinet Council presided over by M. Fallières, it was finally decided that they should both have their last resting-place in the Panthéon, Paris, the Westminster Abbey of France. The funeral took place on Monday morning, March 25, in glorious spring weather. It was a great ceremony, and carried with it all the pomp and display of a great nation paying the last tribute to one of her most cherished sons, who had died at an advanced age, covered with worldly honours. The ceremony was purely civil, and was divided into two parts, the first taking place inside the Panthéon, and the second outside. The latter consisted principally in the march-past of a large force of troops, and was particularly impressive and grand. Two thousand cards of admission were issued for the interior of the building, and outside there was an enormous concourse of people. Those present inside the building included the members of the Government, the members of both Houses of Parliament, the leading French scientists, the members of the Diplomatic Corps, and the principal professors of the Paris University. There was but one speech, made by M. Briand, the Minister of Public Instruction, and in admirable terms he traced the life's work of the great chemist. "The illustrious *savant*," he said, "the great Frenchman we mourn, was one of those prodigious men who are an honour to all countries and all epochs. He considered that no citizen ought to remain disinterested in public affairs, and this is why his life was so well filled and why his activity was employed in so many different directions." A selection of orchestral music completed this part of the ceremony, which was conducted while the

mortal remains of M. and Mme. Berthelot reposed on a catafalque in the centre of the Panthéon. For the second part of the ceremony the two coffins were placed on another monumental catafalque in front of the main entrance of the building, and the official personages present grouped themselves round it. Noticeable also were the delegations of students, for whom Berthelot had always shown a marked interest and affection. The march-past of the troops then commenced, and was terminated at a quarter-past twelve, the entire ceremony having occupied two hours and a half. The coffins were afterwards again removed to the catafalque inside the building, and until five o'clock a continual stream of visitors paid their silent homage to the memory of M. and Mme. Berthelot. Both inside and out the Panthéon was draped with that excellent good taste for which the French alone have the secret.

## RECOLLECTIONS OF BERTHELOT.

(By our Paris Correspondent.)

It was at Meudon, a few years ago, that I first actually met the great chemist. His personal appearance—a rather short and slightly bent man, with bushy grey hair and eyebrows—was familiar to me through attendance at the sittings of the Academy of Sciences. The low, almost inaudible voice in which he, as a permanent secretary, read the correspondence of that learned body was one of my little troubles as a reporter—one could barely catch a word of what he said. Altogether he was hardly the incarnation of one's ideal "great man," and I was induced to draw mental comparisons between the two great chemist-academicians who were ex-professors of the Paris Superior School of Pharmacy—Moissan and Berthelot. But I had never actually spoken to him, and when a friend suggested that "I had only to call," I scouted the idea. To be received by an ex-Cabinet Minister without some introduction shocked my insular prejudices. Besides, I was simply spending a few weeks at Meudon, near Paris, and had not so much as a black suit or a silk hat.



BERTHELOT IN HIS LABORATORY.

"Go as you are," said my friend. "He doesn't bother about dress"; and I duly presented myself at his summer residence at Meudon. So I found. In a flannel suit and an alpaca coat the aged *savant* looked smaller and shabbier than ever as he walked out of his laboratory. A card as the representative of the *C. & D.* was apparently sufficient to obtain not only an interview, but a welcome. I was the more agreeably surprised as this was previous to the *entente cordiale*, and soon after certain incidents had temporarily disturbed Anglo-French relations. The second thing that I found was that once I began chatting I forgot the unassuming appearance of the man. Simple and frank was his utterance. "That man ought to be in a madhouse" was his verdict when our talk turned on the Sultan of Turkey, and I almost forgot I was a casual caller speaking to a Senator and ex-Minister of Foreign Affairs. But the charm of his conversation carried one into new regions. We walked into the library, and he took down one of his volumes on the "History of Alchemy." Turning over the leaves, he briefly yet clearly explained the cabalistic signs, and warming up to what was evidently a favourite study, he told the wondrous tale of the old seekers after the secrets of science till I, for the first time, felt a real interest in their researches. Did he think they were sincere? Some, not all of them. The birth of every science was hung around, he said, with dark clinging superstitions, but progress is the law of nature, and alchemy the mother of chemistry. We thus conversed—or rather I hazarded a "leading" question whenever his quiet flow of curious information was temporarily checked—for half an hour or so, and then we walked out, still chatting, into the pleasant, sunny garden of the Institute of Vegetable Chemistry. It was once the kitchen garden of the Château of Meudon, occupied by the Germans during the siege of Paris, and left in a ruined state after the

war. The Government accordingly pulled it down and divided the land among certain scientific institutions. Berthelot had some 6000, a year to keep up all this place. He raised 200 kinds of plants, many in large plots so as to "experiment in bulk," as he explained. He did not believe in simply analysing one tiny piece of one plant.

Then we talked of himself. He took his threescore and ten years as philosophically as one might expect of a convinced positivist, cheerfully alluding to his probably approaching end, and good-humouredly remarking that it was only the exit of the older *savants* that gave the youngsters a chance. Although a believer in the "simple life," and shunning all merely social occasions as interruptions to his life-work, he believed a good deal of nonsense was talked about the green old age of peasants and labourers. To his mind the brain-worker ought to live the longest and have the most pleasant, as well as fruitful, old age, as brain wears out at a later period than muscle. Order, method, early rising, all helped one to get through extra work. He was always ready to help the younger men, he declared. They would carry on the great work "when we are gone," and deserved in consequence to be encouraged.

I have reason to believe that the Berthelots were model parents. Their four sons have, as all know, gained high and honourable posts. Of his affection for his grandchildren I was a personal witness. We came across a group of them in the garden—bareheaded, barelimbed little ones, roughly dressed and happy-faced as their grandfather, with whom they were evidently prime favourites. He found some sweets for them in the recesses of his pockets, admired a very straggly bouquet of wildflowers they had gathered, and continued his walk and talk in his usual placid manner, but with the children's happy smile still reflected on his face. Since then he has twice been honoured and fêted as few Frenchmen, save Pasteur, have been—once in his "official jubilee," once at his election to the "Académie Française," which I had the satisfaction of reporting for the *C. & D.* when they occurred. But at all these public ceremonies he remained the same simple, cordial, unassuming old man that I saw in the Meudon gardens—the true type of the man who may fulfil the functions of Senator or Minister, Academician or Professor, but who is ever and all through his fourscore years of life first and foremost a simple student of science.

## Demerara Doings.

(From the "C. & D." Correspondent.)

THE GOVERNMENT is presenting name-plates to all nurse-midwives who have been certified since April 1906.

MR. A. GORDON, carrying Messrs. J. & E. Atkinson's samples of perfumery, soaps, and toilet-articles, was in Georgetown when the mail left.

**BUSINESS CHANCES.**—The *s.s. Crown of Navarre* brought out Mr. W. Jarvis from England to join the staff of Messrs. Brodie & Rainor, in succession to Mr. A. J. Walker, who has left the Colony.—Mr. Blank, of Messrs. Blank & Co., druggists, has sold his share of the concern to his partner, Mr. Chapman.

**TUBERCULOSIS.**—A public meeting has been held, at which his Excellency the Governor presided, to discuss the establishment of a Society for the Prevention and Treatment of Tuberculosis. Statistics show that out of 25,780 deaths during the last three years 2,063 were from this disease alone. A resolution was carried appointing a committee to frame rules and carry out the objects of the Society.

**IMPORT-DUTIES.**—The *ad valorem* duty upon goods imported into British Guiana is 15 per cent. Among articles having a specific duty are coffee, 57 per cent.; confectionery, 46 per cent.; cornmeal, 17 per cent.; cigars and cigarettes, 63 per cent.; garlic, 20 per cent.; petroleum, 159 per cent.; cottonseed oil, 66 per cent.; other oils, 54 per cent.; edible seeds, 35 per cent.; tallow, 17 per cent.; tea, 84 per cent. Ice and a few other necessities are free from duty.

**IN THE FUTURE.**—It is proposed to replace the out-patients' department at the General Hospital by opening three new free dispensaries in different parts of Georgetown. A sum of \$4,100 is asked to be voted by the Court of Policy. There is an outcry against the new dispensaries by the small druggists, who say they will be ruined in consequence. Another item requisitioned at the Combined Court is \$500 for the purchase of quinine, which, to prevent fraud, is to be coloured before being made up into tablets and powders.

## India and the East.

SULPHUR has been found in Loralai District of Baluchistan.

THE NEW AGRICULTURAL COLLEGE and Research Institute for the Punjab, which is to be located at Lyallpur, is to cost four lakhs of rupees.

THE TOKIO CHEMICAL LABORATORY, which was built some ten years ago, has begun to decay, so a new building will be erected during the present year.

THE PAY OF CHEMICAL EXAMINERS in India has been improved. In future after twenty-five years' service they will draw an extra Rs. 50 per mensem, bringing their emoluments up to Rs. 1,550, and if they are promoted to the rank of lieutenant-colonel they will get an extra Rs. 100.

**REGISTERED.**—The qualified pharmacists recently registered by the Japanese Minister of the Interior include three graduates from the Chiba Medical School, one from the Sendai Medical School, five from the Kanazawa Medical School, three from the Nagasaki Medical School, and seventeen (including one woman pharmacist) by examination.

**ARECA AND PEPPER IN ACHEEN.**—The Dutch Government in Acheen have taken measures to encourage the cultivation of pepper, areca-nuts, and coconuts among the people. Growers there are in a state of bondage to money-lenders. The Government have come to the help of cultivators of good repute by giving them advances on easy terms, without interest. Many Achinese have applied for advances.

**PHOTOGRAPHICS.**—The British Dispensary, New Road and Seekak, Bangkok, Siam, publish a nicely produced illustrated list of photographic apparatus and sundries. The list contains ninety-six pages, and is equal to any retail list published at home. The use of films is not recommended in the tropics, "the various operations being a source of worry rather than a pleasure," so runs a prefatory note.

**SANDALWOOD-DISEASE.**—The conditions under which the Mysore Government is prepared to pay a reward of Rs. 10,000 to anyone who discovers the cause of spike-disease among sandal-trees are as follows: (1) The cause of the disease must be definitely and clearly determined; (2) an effective, cheap remedy, easy of application, must be prescribed; and (3) the remedy should be such as would perceptibly check within a year the spread of the disease.

THE LEGISLATIVE COUNCIL OF BURMA has, under the Excise Act of 1896, exempted throughout Burma the manufacture, sale, or supply of *bona-fide* medicated articles for medicinal purposes by medical practitioners, chemists, druggists, apothecaries, or keepers of dispensaries from all the provisions of the Act, provided that medicated wines and similar preparations which contain 20 per cent. and upwards of proof spirit shall not be so exempted.

**AERATED WATERS.**—A new plant for the production of aerated waters has been installed by Messrs. Cooper & Co., chemists and aerated-water manufacturers, at 56 Pentinck Street, Calcutta. This firm was the first to manufacture aerated waters by electric-power in the city, and the plant laid down in 1902 is now inadequate for the increasing business. Mr. Kotwal, the proprietor, held a reception on March 3 to witness the inauguration of the new Riley machine and generator. The whole plant is run by a Crompton electric motor. Mrs. Kotwal, the aged mother of the proprietor, set the machinery in motion.

**"CHINA" TEA.**—Mr. J. B. Morris, chemist and druggist, of Bournemouth, England, who was in Ceylon for many years, recently sent to the "Ceylon Observer" a sample of what was described as "China Tea," specially recommended by medical men, which a London firm are offering at 2s., 2s. 2d., 2s. 6d., 2s. 10d., and 4s. per lb. The sample was submitted to a firm of Ceylon tea-experts, who reported that it was chiefly composed of China tea, but that it also contained a small percentage of Indian tea. "The infused leaf is uneven and mixed," continued the experts, "and the liquor is rather flat and of poor quality. The sample is evidently rather old, and the tea has become somewhat flat, which renders it difficult to place a valuation on it with any certainty; but our opinion is that the value of the tea when fresh is about 9d. per lb."

## Australasian News.

### The Commonwealth.

**PENNY POSTAGE.**—The Commonwealth Government has decided to introduce a Bill establishing penny postage, not only throughout Australia, but with all parts of the British Empire and with all countries which will deliver penny-postage letters from Australia.

**ETHER-MAKING.**—Under the Spirits Act regulations have been adopted for the methylation or denaturing of spirits for the manufacture of sulphuric ether. In the first instance 20 per cent. of sulphuric acid is to be added, and the process of manufacture must be under the personal supervision of an officer at a charge of 2s. per hour. In subsequent operations 10 per cent. of sulphuric acid and 10 per cent. of the residue of a previous operation may be added. In each case the spirit is to be of a strength of not less than 65° over proof. The acid and residue are to be forwarded to the Customs warehouse or distillery where the methylation is to take place.

### New Zealand.

**ANALYTICAL WORK.**—The thirty-ninth annual report of the Colonial Laboratory, prepared by Dr. MacLaurin, F.C.S., Mines Analyst, states that the new building for the scientific work of the department was completed during the year, and the accommodation provided for the analytical section seems to be on a generous scale, since it consists of nine rooms, the largest being 28 ft. square. Photographs of the exterior of the building, the main laboratory, and the furnace-room are given in the report. The last of these illustrates one of the difficulties experienced in countries where coal is not abundant, since it shows a large pile of logs of wood stacked in one corner. Altogether 629 analyses were made during the year, mostly of minerals, waters, and fuels. The mineral samples include the petroleum recently discovered in the Colony, which yields 5 to 15 per cent. of petroleum spirit and 20 to 42 per cent. of kerosene, in addition to considerable quantities of heavy oil. Other samples of special interest are scheelites from Marlboro' and Wakamarina, the first of which contained the equivalent of 43.62 of metallic tungsten; a specimen of chrome-iron ore from Croixelles, containing 21.2 per cent. of chromium; and one of kieselguhr, obtained between Mount Eden and Mount Albert, in Auckland, which, though no practical test of its absorptive power was made, appears to be of good quality. Among other noteworthy samples recorded in the schedule, but of which no particulars are given, are a "curative earth" from Masterton, molybdenite from Point Elizabeth, bauxite from Waitara, "supposed" diamonds from Takaka, and phosphate rock from Napier.

### Queensland

**WEEDS AND POISONOUS PLANTS.**—Mr. F. Manson Bailey has brought out an excellent reference work containing a description of the various weeds and poisonous plants of Queensland. The book includes admirable outline drawings by Mr. A. M. Payne, which those who know the plants will recognise at once as characteristic. Although only dealing with a limited part of the flora, a great many of the more conspicuous plants are figured.

## From the Transvaal.

**OPIMUM-SMUGGLING.**—Ah Yung, a Cantonese storekeeper at Vogelfontein, was fined 30l. at Boksburg on February 19 for opium-smuggling. At the Penoni police-court a coolie was fined 4l. for a similar offence.

**MASONIC HONOURS.**—On February 26 Mr. Charles Thomson, chemist, Roodeport, was installed for the second time as Worshipful Master of the Roodeport Lodge, English Constitution, the District Grand Lodge visiting.

**BUSINESS CHANGES.**—Messrs. Brande & Righthouse, Ltd., have closed their Eloff Street branch. Mr. Edward Stanton Corke, who had managed the establishment for them for some considerable time past, has joined the staff of Messrs. B. O. Jones, Ltd., Boksburg. Mr. Ross, who for several years had been with Mr. Walker Pole, Braamfontein, has taken over the management of Messrs. Brande & Righthouse's Fordsburg branch in place of Mr. M. Kagan.

## Canadian News.

(From the "C. & D." Correspondent.)

**BOUNTY ON ARSENIC-PRODUCTION.**—In order to encourage the domestic refining of metals in Ontario it is proposed to grant bounties. That on arsenic produced from mispickel ores is to be  $\frac{1}{2}$  c. per lb., and the total of the payments is not to exceed \$15,000.

**MARTINEAU'S QUARRY** on Delorimier Avenue, Montreal, was on March 9 the scene of an interesting experiment in the testing of a new explosive known as megadine. This explosive is the invention of a London chemist, Mr. F. E. W. Bowen, and is manufactured from perchlorate of ammonia, aluminium powder, mineral jelly, and toluol. It is not a chemical compound, but a simple mechanical mixture, and many advantages are claimed for it over dynamite. It is non-freezing.

A RATHER SERIOUS STATE OF AFFAIRS developed among the students of McGill College recently. The Freshmen held a smoker and concert, and during the performance a number of Sophomores cut the electric wires and threw ammonia over several of the students, burning two of them severely. It was feared for some days that one of them would lose his eyesight, but hopes are now entertained that they will both recover without permanent injury. An investigating committee decided to suspend fourteen of the Sophomores for the outrage.

## American Notes.

(From the "C. & D." Correspondent.)

**AN AMENDING BILL.**—A Bill providing for important changes in the law regulating the practice of pharmacy and the sale of poisons in the district of Columbia enacted last May has been reported to the House and passed by that body. The amendatory Bill makes important modifications in the functions of the Board of Pharmaceutical Examiners and the Board of Supervisors in Medicine and Pharmacy, and repeals the provision of the present statute exempting pharmacists from jury-duty.

**THE TRAVELLING QUACK.**—The druggists in the Western States object to the patent-medicine waggons that drive from town to town, taking trade away. The owners of these waggons pay no taxes to the State, do nothing to support the community, and take money out of the commonwealth. The druggists claim that it amounts to unfair competition. In one or two States laws have been enacted in recent years putting a tax of \$200 annually upon these itinerant vendors, and at the present time the druggists of Kansas are making strenuous efforts to obtain a similar statute.

**RAISING THE STANDARD.**—If the character of medicaments in the United States is not elevated to the highest possible standard very soon, it will not be because efforts of various kinds are not being put forth toward this end. The Food and Drugs Act, just now the subject of universal interest, is achieving a great change in drug-standards; while the Council of Chemistry and Pharmacy of the American Medical Association has for two or three years been labouring to separate the sheep from the goats by informing physicians which proprietary medicines might be prescribed by them, and which ought to be ignored. Now a new movement is gaining some impetus. The American Pharmacologic Society essays to do what the Council has done, but on a somewhat broader basis. Proprietary articles and new drugs are to be subjected to physiological trial, and the physicians of the country are to be informed of the results. One of the first effects of this Council's work is to condemn compound digestive elixir, because it contains both pepsin and pancreatin.—Druggists in several States are taking the initiative, and are seeking to get a satisfactory Food and Drugs Act for their States before a measure is introduced from outside. One thing they are fighting for is a clause exempting prescriptions and U.S.P. and N.F. preparations from the labelling clause of the Federal Act, providing that the content of alcohol and certain narcotics must be stated upon the label, as this clause was meant to apply to patent medicines only.

## German News.

THE CHAMBER OF COMMERCE OF MAGDEBURG has formed two special committees of six members each to have charge of those subjects relating either to pharmacy or retail druggists.

THE WANT OF PHARMACEUTICAL ASPIRANTS in Germany is now assuming alarming proportions. This state of affairs is partly due to the increased educational demands made upon the candidates, and partly to the uncertain conditions prevailing in the profession with regard to future advancement. The Apotheker Verein has started a registry office for apprentices, and will this spring advertise for apprentices in several of the more important German daily papers.

THE PRESCRIPTION-LIST of patent medicines which can only be sold upon a doctor's prescription is going into a new edition. Of the 600 proposed additions only fifty have been accepted, so that in future the list will contain 145 articles. This measure has proved a failure, as large firms evaded it by slightly altering the composition of their products or by changing the names. The Government therefore proposes to establish a Chamber for the control of patent medicines, to be composed of lawyers, medical officers, apothekers, merchants, and veterinary surgeons. One member will be given the powers of a State Prosecutor, and will be able to proceed against persons as well as the remedies themselves. It is thus hoped to successfully combat the evil.

EARLY CLOSING.—The apothekers of Hamburg and Altona have informed the public that in future they will only deliver medicine and articles for the use of the sick on such days and during such hours as all other businesses are allowed to trade, since the delivery of goods is not included in the exemption to the laws about closing, etc., made in favour of pharmacies.—The first step towards introducing Sunday rest into Berlin pharmacies has been made by four apothekers in the neighbourhood of the Görlitzer station. From April 1 three of these will close from 2 P.M. till midnight, the fourth being open. Dresden is ahead of Berlin in this respect, for some time past every apothekes has closed at 2 P.M., one assistant being in charge after this hour.

THE RAT-KILLERS.—At an annual meeting of the German Agricultural Society in Berlin, Dr. Rübiger, director of the Bacteriological Institute of the Saxon Chamber of Agriculture, spoke on the extermination of rats, field mice, and snails. After explaining the many methods in use for the destruction of these vermin, he stated that from practical experiments the best results had been obtained by the use of rat-killing bacillus cultures, such as the Danysz virus and Neumann's Ratin. Feeding-experiments also proved that these cultures are innocuous to other animals. Against field mice, Dr. Rübiger advocated the use of the Löffler mouse typhoid bacillus or carbon bisulphide. The sprinkling of powdered lime at short intervals in cornfields had proved to be the best method for destroying snails.

THE SALE OF MEDICINES IN GERMANY.—The restriction of the sale of certain medicinal remedies to German pharmacies, to the exclusion of drug-stores, has always led to much heartburning. The definition of the term "remedy" has caused numerous disputes between pharmacists and druggists. In the opinion of the former the term should be extended so as to include all preventive remedies, and thus reserve these to the pharmacies. On the other hand, the druggists suggest that the term should be restricted so as to reserve to the pharmacies only such remedies as already at present are not allowed to be sold without medical instructions. These differences are now engaging the attention of various Chambers of Commerce throughout the country.

THE BADISCHE ANILIN UND SODA FABRIK is erecting a factory in Sweden for the production of artificial salt-petre. The negotiations for the construction of a factory on the Alz, in Upper Bavaria, between Burgkirchen and Burghausen, are suspended owing to certain difficulties regarding complicated questions of right, which may, however, be overcome.

## Westminster Wisdom.

(From our Parliamentary Representative.)

### THE PHARMACY BILLS.

The Government Poisons and Pharmacy Bill was again on the orders on Monday, March 25, but was not reached, and stands postponed until April 8. I understand that when the Select Committee is appointed and witnesses called, three only will be asked to represent chemists in Great Britain, and these will be selected by the Pharmaceutical Council. The Pharmacy Bill has been carried over by Mr. Winfrey until April 16.

Reference was made last week to the action of Mr. Cross in withdrawing the blocking motion of which he had given notice. Approached in the Lobby on the subject, the hon. member said he could make no statement as to the reasons which had actuated him in taking this course. Mr. Cross's reticence has rather strengthened the impression that some kind of compromise is being negotiated.

### SOCIETY OF APOTHECARIES BILL.

The Bill has now passed the third reading in the House of Lords.

### INSECTS AND PESTS BILL.

A Bill to extend the Destructive Insects Act, 1877, to all pests destructive to crops, trees, or bushes was presented by Earl Carrington in the House of Lords on March 21, and read a first time.

### TRADE-MARKS ABROAD.

Mr. Tillett asked the Foreign Secretary on March 25 whether Embassy officials on the Continent are directed to give practical assistance to English traders whose trade-marks have been counterfeited. Sir E. Gray, in a printed reply, said that it is the duty of foreign representatives to render such assistance as is proper and desirable in each individual case, but they cannot interfere in legal proceedings nor can they act as legal advisers.

### PATENTS BILL.

Mr. D. A. Thomas sees a menace to free trade in the Bill, and has given notice to move on the second reading a resolution affirming the determination of the House to resist any proposal which compels the manufacture of an article in this country that may be produced with greater economy elsewhere. He is of opinion that abuse of the patent-monopoly may be prevented by requiring that the patented article shall be sold in the United Kingdom at a price not higher than the lowest at which it is sold abroad.

### NATIONAL PHYSICAL LABORATORY.

Mr. Runciman was called upon to answer several questions about this laboratory on Tuesday. They began with one by Sir W. Evans-Gordon about a research on gutta-percha for a private firm which had occupied nine months, and the fee paid by the firm for the work was 502l. 17s. 4d. The chemical results arrived at were published in a paper by Dr. Caspari, which was printed in the "Journal of the Society of Chemical Industry" for December 30, 1905, and in the "Collected Researches of the Laboratory," Vol. II. The physical and mechanical results are in the Director's hands, and could be published if necessary, but it has not been thought that they are of sufficient public importance to justify the expenditure. Replying to other questions, which suggested that the laboratory is competing with private ventures and that the work done is not commensurate with the expenditure, Mr. Runciman stated that a Treasury Committee is now going into the whole matter, and it will report shortly. So far, the laboratory has received 19,000l. from the Government for equipment and annual grants amounting to 33,500l.

AN ORDER OF THE BOSNIAN GOVERNOR, dated February 15, touching the medicine-tax, states that the new Austrian medicine-tax extends to Bosnia.

THE SOUTH AFRICAN PRODUCTS EXHIBITION, which has been transferred to Holland, was opened at Amsterdam on March 25, by Dr. Veegens, Dutch Minister of Agriculture.

## Contracts.

Additional contracts with public bodies have been ratified as under :

Belper Guardians.—Messrs. J. Calvert & Son, chemists, for drugs.

Luton Guardians.—Mr. H. E. Hall, chemist and druggist, for drugs.

Exeter Guardians.—Messrs. Burgoyne, Burbidges & Co., London, for drugs.

Warrington Guardians.—Mr. H. M. Ashton, chemist and druggist, for drugs.

Ludlow Guardians.—Mr. G. Woodhouse, chemist and druggist, for drugs.

Hastings Guardians.—Mr. J. Griffiths Richards, chemist and druggist, for drugs.

Amersham Guardians.—Mr. A. H. Haddon, chemist and druggist, for cod-liver oil.

Gravesend Guardians.—Mr. R. Feaver Clarke, pharmaceutical chemist, for drugs.

Hereford Guardians.—Newton, Chambers & Co., Ltd., Sheffield, for disinfectants.

Reigate Rural Council.—Mr. Potter, Meadvale, for drugs for the Isolation Hospital.

Ipswich Guardians.—Messrs. Wiggin & Son, pharmaceutical chemists, for drugs.

Reigate Guardians.—Mr. W. H. Fowler, pharmaceutical chemist, Redhill, for drugs.

Eton Guardians.—Mr. H. E. Walden, chemist, Slough, to be chemist to the workhouse.

Cambridge Guardians.—Mr. J. Sturton, 8 Fitzroy Street, to be chemist to the workhouse.

Barnsley School Managers.—Mr. W. A. Bellamy, chemist and druggist, for chemicals for a year.

Westminster City Council.—Dussek Bros. & Co., Ltd., and the Sanitas Co., Ltd., for disinfectants.

Bridgend and Cowbridge Guardians.—Ferris & Co., Ltd., Bristol, for drugs at 15 per cent. off list price.

Brentford Guardians.—Middleton Bros. for the half-yearly supply of disinfectants at 184l. 9s. 2d.

Southend-on-Sea Corporation.—Messrs. Burgoyne, Burbidges & Co., London, for drugs to the sanatorium.

Walsall Guardians.—Messrs. G. Elliott & Son and Messrs. Cuxson, Gerrard & Co. for drugs and surgical dressings.

Mansfield Town Council.—Mr. A. H. Bell, pharmaceutical chemist, to be chemist to the workhouse for a year.

Tonbridge Guardians.—Jeyes' Sanitary Compounds Co., Ltd., for disinfectants; Corbyn, Stacey & Co., Ltd., London, for drugs.

Blackburn Guardians.—Messrs. Booth & Openshaw, chemists, of Darwen Street, for oils, lubricants, and general druggists' sundries.

Strand Guardians.—Messrs. C. J. Hewlett & Son, Charlotte Street, Great Eastern Street, E.C., for drugs at 3½ per cent. off the schedule.

Cheltenham Guardians.—Cheltenham & County Drug Co., Ltd., for rolled sulphur, 8s. 6d. per cwt.; Savory & Moore's patent food, 8s. per doz. tins.

Whitchurch Guardians.—Mr. H. G. Betts, chemist and druggist, for carbolic soap (30s. cwt.), disinfecting-fluid (2s. 3d. per gal.), Izal (8s. per gal.).

The St. Ninians Parish Council has decided to allow the medical officers to charge for their medicines, instead of paying them a lump sum of 13l. 2s. 6d. per annum.

St. Pancras Guardians.—Hospitals and General Contracts Co., surgical dressings and sundries; Burgoyne, Burbidges & Co., optics, proprietary articles, and surgical instruments.

Sculcoates (Hull) Guardians.—Mr. F. E. Johnson, chemist and druggist, 9 Prince Street, Hull, for drugs; Messrs.

Sayers, Silcox & Cuzner, Prospect Street, Hull, for surgical appliances.

London County Council.—Mr. D. Matthews, Glamorgan, 500 tons protosulphate of iron at 23s. 6d. per ton, 400 tons at 24s., 200 tons at 24s. 6d.; Gas Light & Coke Co., Ltd., 100 tons at 25s. The Main Drainage Committee also recommended that the name of Messrs. T. Herschel, Jones & Co. be removed from the list of contractors to the Council, owing to their refusal to complete their contract, and this was agreed to.

Bolton Workhouse.—Waller & Riley, Ltd., 17 and 19 Bradshaw Gate, Bolton, for drugs and bovril; Mr. J. W. Brooks, chemist and druggist, for disinfectants; J. Taylor & Co., Ltd., Bank Street, for druggists' sundries.

Gosport Guardians.—Mr. M. R. French, to be chemist to the workhouse for six months; Messrs. W. B. Smith & Son, chemists, for Sanitas soap (28s. cwt.), Sanitas powder (11s. cwt.), carbolic soap (28s. cwt.), carbolic powder (16s. cwt.).

Alton (Hants) Guardians.—Trimming & Co., Ltd. :

Bandages, 11½d., 1s. 2d., 1s. 5d. per doz.; medicated wool, 1s. per lb.; tow, 3½d. bundle; permanganate of potash, 6d. per lb.; boric crystals, 4½d. per lb.; camphorated oil, 2s. per lb.; castor oil, 8d. per lb.; Sanitas, 4s. per gal.; linseed oil, 2s. 5d.; turpentine, 4s. 9d.; crushed linseed, 2½d. per lb.; iodoform-powder, 1s. 6d. per oz.; Leicester strapping, 1s. 6d. per roll; vaseline, 8d. per lb.; glycerin, 8d. per lb.; carbolic soap, 17s. per cwt.; starch-powder, 3½d. lb.; zinc-powder, 8½d.; Epsom salts, 1d.; fullers' earth, 1d.; carbolic acid, 1s. 9d.; carbolic oil, 1s. 2d.; lead lotion, 3d.; zinc ointment, 1s.; sulphur ointment, 1s.; iodoform ointment, 3s. 2d.; lint (white hospital), 1s.; boric lint, 1s. 4d.; absorbent wool, 1s.

Cannock Guardians.—Mr. T. W. Garland, pharmaceutical chemist, Cannock :

For combs, 5s. per doz.; tooth-brushes, 5s. per doz.; feeding-bottles, 9s. 6d. per doz.; clinical thermometers, 1s. 9d. each; cotton-wool, 1s. 0½d. per lb.; lint, 1s. 5d. per lb.; Sanitas disinfectant, 10s. 6d. per doz. bottles; fullers' earth, 3½d. per box; frame food, 11d. per tin; machine oil, 1s. 6d. per gal.

Mr. E. A. Fereday, chemist and druggist :

For dressing-combs, 5s. per doz.; Condy's fluid, 10s. 6d.; linseed meal, 2½d. per lb.; brimstone, 1½d. per lb.; castor oil, 6s. per gal.; Jeyes' fluid, 4s. 4d. per gal.

Swansea Corporation.—United Alkali Co., Ltd., Liverpool, for chloros (1s. 8d. per gal.), chloride of lime (4s. per cwt.); McDougall Bros., Ltd., Manchester, for McDougall's soluble powder (54s. per gross packets); Killgerm Co., Ltd., Cleckheaton, for formalin tablets (20s. per 6-lb. tin); Messrs. Alfred Young & Co., Millwall, for disinfecting-powder (3s. 3d. per cwt.); Messrs. Adcock, Easton & Co., Holloway, for disinfecting-fluid (8d. per gal.).

Tiverton Guardians.—Mr. T. E. Rossiter, chemist and druggist, for

Bovril, 4s. 8d.; large combs, 1s. 9d. to 5s.; disinfecting-fluid, 3s. 3d. and 1s. 9d.; elastic stockings, 2s. 6d. and 3s. 3d.; hair-brushes, 9d.; crushed linseed, 5s. per 28 lb.; flask oil, 9s. 6d.; Sanitas, 6s. 3d. per half-gallon; carbolic soap, 30s. 6d.; coal-tar, 2d.; soft soap, 30s. 6d.; glycerin, 1s. 8d.; sea-salt, 1s. 1d. per 7 lb.; soda-water, 3s. 6d. per doz.; spirit of turpentine, 4s. 9d.; trusses, 1s. 9d. and 2s. 3d.; whitening, 1s. per 28 lb.

Mr. H. E. Hatt, chemist and druggist, for

Fly-papers, 6s. per gross; Fuller's earth, 2½d.; insect-powder, 1s. 8d. per lb.; chloride of lime, 2d.; methylated spirits, 2s. 1d. per gal.; linseed oil, 2s. 1½d. per gal.; cod-liver oil, 9d. per pint; bay-salt, 1d.

Holborn Borough Council.—The following contracts for the supply of disinfectants for the year have been entered into. The figures in parentheses show (1) the estimated quantity required, and (2) the price paid last year :

Formalin Hygienic Co.—Formalin tablets (28 lb., 2l. 9s. per 14 lb.), 2l. 9s. per 14 lb.

Adcock, Easton & Co.—Pale carbolic acid (300 gals., 9½d. per gal.), 1s. 2d. per gal.; prepared carbolic acid (375 gals., 4½d. per gal.), 6½d. per gal.; carbolic disinfecting-powder (50 cwt., 2s. 3d. per cwt.), 2s. 9d. per cwt.; chloride of lime (65 cwt., 5s. 6d. per cwt.), 6s. per cwt.; perchloride of mercury (11 gals., 14s. per gal.), 14s.; permanganate of potash (17 cwt., 1l. 14s. per cwt.), 1l. 18s. per cwt.; sulphur (1½ cwt., 7s. per cwt.), 6s. 6d. per cwt.; Kuma pine (80 gals., 2s. 6d. per gal.), 2s. 6d. per gal.

At a meeting of the Mitford and Launditch Board of Guardians on March 25, this letter was read from Mr. T. B.

Cattell, chemist and druggist, whose tender for drugs, etc., had been accepted :

I must beg to decline to supply the lines you specify for the Mitford and Launditch Union, as I was under the impression that all or none would be allotted. One of the lines you mention—namely, clinical thermometers,  $\frac{1}{2}$  min., at 14s. per dozen—I thought I had quoted 22s. 6d. per dozen. The 1 min. clinical are quoted at 20s. a dozen, so  $\frac{1}{2}$  min. could not be less. After discussion it was agreed to hold Mr. Cattell to his contract.

## Legal Reports.

### High Court Case.

KODAK, LTD., v. STANDARD PATENTS CO.

BEFORE Mr. Justice Parker in the Chancery Division on March 22, Mr. Kerley mentioned this action, in which the plaintiffs sought to restrain the defendants from uttering threats in reference to an alleged patent. The defendants had issued a writ in a patent action, and the usual consequences followed. The action for threats would be stayed, the defendants undertaking to prosecute the patent action diligently, and not to publish further circulars containing threats. An order to that effect was made by agreement.

### Pharmacy Act, 1868.

#### A WIDOW FINED.

At the Old Street Police Court on March 25, Mrs. Elizabeth Simpson, a widow, carrying on business as a chemist at Hyde Road, Hoxton, appeared to answer a summons, at the instance of William Molton, on behalf of the Pharmaceutical Society, charging her, under Section 17, with having sold a scheduled poison in a bottle not labelled with her name and address as the seller. Mr. Glyn-Jones, barrister, prosecuted; Mr. Margetts, solicitor, defended.

Mr. Glyn-Jones, in opening the case, stated that he understood it would not be necessary to prove the facts, as it had been intimated to him that the defendant would plead guilty. He stated, however, that Section 17 makes it an offence to sell any article scheduled in the Act as a poison without the name and address of the seller appearing on a label to be attached to the bottle at the time of sale. Mrs. Simpson was within her rights when carrying on business as a chemist, but unless she had a duly qualified assistant, could not sell poisons, even though she complied with the Act as to the labelling.

Mr. Cluer : You mean that she could not even hand them out to a purchaser ?

Mr. Glyn-Jones : That is so. Counsel, continuing, said that the poison sold was carbolic acid, and it was sold to a man named Wheatley, whose child, two and a half years old, drank from the bottle, which its mother had left on the kitchen-table, and died from the poison.

Mr. Cluer : A child of that age drink from a bottle ?

Counsel : Yes, sir; perhaps it was a precocious child of this district. There was an inquest, and I may say that this case was brought to the notice of the Pharmaceutical Society by the Coroner, and the Society has thought it right to bring the case into court.

Mr. Cluer : Do you suggest that so young a child was attracted by the bottle ?

Counsel produced the bottle, which proved to be an ordinary black bottle of the ale kind, holding about a pint. On a portion of its surface it bore a label of "Barclay's Pale Ale." On another part—as it were behind the label—there was a narrow label, with the word "Poison" in red letters. That was all, said counsel, defendant had put on. There was no name or address of the vendor.

Mr. Margetts, for the defence, said that no one more regretted the untoward event of the child's death from drinking the carbolic acid than did Mrs. Simpson. She had had the misfortune to lose her husband, who was a registered pharmaceutical chemist. He had carried on the shop in question for a number of years, and she had endeavoured, with the aid of an assistant, to go on earning a living for herself and family. She was aware of the fact that she could not dispense poisons, such as opium, and had taken care, as she thought, to comply with the Act.

Mr. Cluer : Can she not dispense laudanum ? I can buy a phialful at a chemist's in my district.

Mr. Margetts : It is well known that laudanum is a scheduled poison, but it is not so well known that carbolic acid is. As a fact, it has only been included in the Schedule three or four years. Now, in this instance the man Wheatley came to my client on a Sunday morning, and asked for a disinfectant. He stated that one of his children had been taken to hospital suffering from fever, and that the doctor had stated his place must be thoroughly disinfected. This carbolic acid had been in Mr. Simpson's shop for some time, and Mrs. Simpson, sympathising with the father in his trouble, supplied him with this bottle full. She put the label "Poison" on it, and gave him instructions not to leave it about, and that after he had well washed the place and sprinkled the stuff about, he was to destroy the bottle. Who could have supposed that it would be left on a table, or that a child would have taken it up and drank from it ?

Mr. Cluer : The best defence is that, however the bottle might have been labelled, it would not have prevented a baby of two and a half years from drinking from it. It was unfortunate, but I do not think Mrs. Simpson need allow the death of this child to prey upon or worry her mind at all. No act of carelessness on her part contributed to it.

Mr. Margetts said that Mrs. Simpson had taken it very much to heart.

Mr. Cluer : She is in no way responsible. For the breach of the Act she must pay a fine of 20s., and 2s. costs.

### Merchandise-marks Act.

#### SODA CRYSTALS.

On March 22, at the Dublin Southern Police Court, a case was heard by Mr. Swift, Divisional Magistrate, in which Nicholas Walsh, 22 Cuffe Street, Dublin, was prosecuted by Guyton Butler (representing Messrs. Brunner, Mond & Co., Northwich) for selling as soda crystals a mixture containing 51.8 per cent. of Glauber's salt. It was stated by the prosecution that 3 per cent. of Glauber's salt is the limit that should be present in soda crystals. Evidence of purchase and analysis was given, Sir Charles Cameron being called to prove the analysis—he stated that washing-soda should not contain more than 2 per cent. of Glauber's salt. The sample he examined was mechanically mixed, and as diluted would be useless for spraying a potato-crop as a remedy against blight. Mr. Kling, analyst to Messrs. Brunner, Mond & Co., said the sample he examined contained 62.13 of Glauber's salt. For the defence it was stated that defendant had purchased the soda from a wholesale dealer as "first-quality soda crystals," and sold it as such in good faith.

Mr. Swift, in giving judgment, said he considered the case a highly scandalous one, and that made him regret that he had not the proper defendant before him. He was sorry there could not be a conviction in the case, but he had come to the conclusion that Walsh had purchased the soda, as was shown by the invoice, as "first-class soda crystals," and paid a price for it which was not inconsistent with that description. He dismissed the summons, and, in answer to Mr. Blood, said he could not state a case, as he had decided the matter on the facts.

### Sale of Food and Drugs Acts.

#### POWDERED GENTIAN.

At the Guildhall Police Court, London, E.C., on March 21, before Alderman Sir Alfred Newton, Mr. Charles Edward Hillman, pharmaceutical chemist, of 5 Liverpool Street, and Mr. John Morgan Davis, chemist and druggist, 89 Bishopsgate Street Without, were summoned at the instance of Mr. W. H. May, Food and Drugs Acts inspector, for selling powdered gentian-root adulterated with ground olive-stones. Both defendants repudiated any knowledge that the drug was adulterated, and said they sold it as it was supplied by the wholesale house. In answer to the Alderman, the inspector said he had taken these samples on the instructions of Dr. Collingridge, medical officer of health for the City. Sir Alfred observed that the defendants were only guilty technically, and the position of affairs ought to be brought to the notice of the wholesale houses. He ordered each defendant to pay 12s. 6d. costs.

## County Court Case.

### BALANCE OF FINES.

At Bow County Court, before Deputy-Judge Williams, on March 22, the Council of the Pharmaceutical Society of Great Britain brought an action to recover 4*l.* 10*s.* from Thomas Davies, trading as Davies & Davis, at 6 Markhouse Parade, Lea Bridge Road, Leyton, which represented the balance of two penalties of 5*l.* each which he had incurred. Mr. W. H. Quarrell appeared for the Council, and explained that defendant had exhibited the title "Chemist," he not being qualified, and had, on December 3, 1906, sold a bottle of Mrs. Winslow's soothing-syrup and some ammoniated mercury to a representative of the Society. Mr. Quarrell was about to call witnesses, when defendant said there was no need, as he admitted his liability and had already paid 5*l.* 10*s.*—His Honour: He admits both offences, so I must give judgment against him.—Defendant asked for time to pay the 4*l.* 10*s.*, but Mr. Quarrell objected, on the ground that he was the proprietor of this shop and employed another unqualified man as an assistant. This the defendant denied.—Mr. Quarrell: Are you in receipt of any pension?—None Whatever.—His Honour made an order for the amount to be paid in two monthly instalments.

## Bankruptcy Report.

*Re* PERCY PROCTER JUDGE, Folkingham, Chemist and Druggist.—The examination of this debtor was closed at the Peterborough Bankruptcy Court last week, his accounts showing unsecured liabilities 435*l.* 0*s.* 5*d.* and assets estimated to realise 155*l.* 14*s.* 5½*d.*

## Deeds of Arrangement.

INGHAM, THOMAS, Pendre House, Holywell, Chemical-manufacturer.—Trustee, Thomas E. Cowley, 5 Cook Street, Liverpool. Dated, March 18; filed, March 25. Secured creditors, 53*l.*; liabilities unsecured, 3,287*l.* 7*s.* 1*d.*; estimated net assets, 712*l.* 15*s.* 4*d.*

BARRETT, HUGH, Castleton Chemical-works, Castleton, and 57 Rochdale Road, Middleton, Chemical-manufacturer.—Trustee, William R. Sharp, 30 Brown Street, Manchester. Dated, March 13; filed, March 20. Secured creditors, 350*l.*; liabilities unsecured, 656*l.* 3*s.* 10*d.*; estimated net assets, 159*l.*

HODSON, ALBERT EDWARD, 37 Beech Avenue, Sherwood Rise, Nottingham, Chemist and Druggist.—Trustee, Robert Rhodes, Low Pavement, Nottingham, C.A. Dated, March 22; filed, March 23. Liabilities unsecured, 702*l.* 13*s.* 7*d.*; estimated net assets, 135*l.* The creditors include: Barclay & Sons, London (22*l.*); Bourne, Johnson & Latimer, London (10*l.*); C. A. Hodson, Bromsgrove (134*l.*); Butler & Son, Leicester (16*l.*); Evans Sons Lescher & Webb, Ltd., Liverpool (110*l.*); S. Cook, Nottingham (295*l.*); Newball & Mason, Nottingham (15*l.*).

## Gazette.

### Partnership Dissolved.

POLLARD, G. W., and CLAXTON, E. I., Liverpool, physicians.

### The Bankruptcy Acts, 1883 and 1890.

#### ORDER MADE ON APPLICATION FOR DISCHARGE.

SMITH, W. C. F., Halifax, physician and surgeon—discharge granted.

## New Companies and Company News.

BELFAST BOXMAKING AND GELATINING CO., LTD.—Registered in Dublin. Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of box and showcard manufacturers, gelatiners, mounters, general merchants, etc. Registered without articles of association. Registered office, 1 Waring Street, Belfast.

SO-EASY MANUFACTURING CO., LTD.—Capital 5,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with R. Emery and J. Dixon, and to carry on the business of manufacturers, importers, buyers and sellers of soap and all kinds of saponaceous compounds, etc. The first directors are J. J. Lamigeon, R. Emery, and J. Dixon.

PEARL SPRING, LTD.—Capital 5,000*l.*, in 1*l.* shares. Object: To carry on the business of manufacturers and dealers in mineral and aerated waters and other beverages (alcoholic and non-alcoholic), cordials, syrups, fruit, juices, essences, essential oils, flavouring, colouring, and other preparations, etc. Registered office, 25 Euston Road, N.W.

THOMAS SANDERSON & CO., LTD.—Registered in Edinburgh. Capital 6,000*l.*, in 1*l.* shares. Objects: To take over the business of aerated-water manufacturers carried on by Thomas Sanderson at Criterion Mineral-water Works, 40A Causeway-side, Edinburgh, and to carry on the same and the business of cork-cutters, chemists, etc. Registered office, 40A Causeway-side, Edinburgh.

DEANBANK CHEMICAL CO., LTD.—Capital 25,000*l.*, in 1*l.* shares. Object: To adopt an agreement between Bolckow, Vaughan & Co., Ltd., of the first part, Thomas Ness, Ltd., of the second part, and W. A. Bower of the third part; and to carry on the business of chemical-manufacturers, tar and ammonia distillers and refiners, etc. The first directors are I. Williams (chairman), W. W. Storr, R. Dempster, and H. Ellison. Registered office, 8 Priestgate, Darlington.

CALLENDER'S PATENT PATELESS PAINLESS CO., LTD.—Capital 3,000*l.*, in 1*l.* shares (1,000 5-per-cent. cumulative preference). Object: To adopt an agreement with Annie Callender for the acquisition of the business of an artificial denture-manufacturer and dental surgeon carried on by her at Nottingham; Derby, Burton-on-Trent, Long Eaton, Sheffield, Matlock, and various other places, under the styles of Callender & Co., the Patent Pateless Dental Co. or Institute, and the American Dental Surgeries. The first directors are W. C. Lewis and Mrs. A. Callender. Registered office, 14 Market Street, Nottingham.

ABBEY EFFERVESCENT SALT CO. OF CANADA, LTD.—Capital 50,000*l.*, in 10*s.* shares. Object: To acquire the business of manufacturers of and dealers in medicinal preparations, patent medicines, drugs, chemicals, and proprietary articles, including particularly Abbey's Effervescent Salt and Abbey's Effervescent Potash, carried on by the Abbey Effervescent Salt Co., Ltd.; to adopt an agreement with the said company and R. W. Smith, and to carry on the same and the business of manufacturing, analytical, and dispensing chemists, etc. The first subscribers are: R. W. Smith, Montreal, financial agent; B. J. Coghlin, Montreal, merchant; J. Statham, Montreal, merchant; G. W. Sadler, Montreal, manufacturer; D. Russell, Montreal, managing director; H. S. Williams, Montreal, advocate; and A. Falconer, Montreal, advocate. No initial public issue. The first directors are G. W. Sadler, R. W. Smith, D. Russell, and B. J. Coghlin. Remuneration as fixed by the company.

IN RUSSIA.—The South Russian Pharmaceutical Products Trading Co., Kieff, closed its twenty-fifth working year (1905-6) with a net profit of 124,820*r.* The dividend to be paid is 10 per cent., as in the preceding year.

UNITED ALKALI CO., LTD.—The annual meeting was held at Liverpool on March 22, Mr. John Brock presiding, when the directors' report (*C. & D.*, March 23, p. 442) was adopted unanimously. In seconding the adoption of the report, Mr. E. K. Muspratt alluded with satisfaction to the renewal of the Alkali Act, an excellent piece of legislation. The promised Government legislation on the Patent Laws will, he said, if carried, be of great benefit not only to the chemical-manufacturers of the country, but to all other industries.

A. & F. PEARS, LTD.—Before Mr. Justice Parker, sitting at the High Court of Justice, Mr. Buckmaster, K.C., on March 23, asked that a petition for the reduction of the capital of this company should stand over. He said there were undoubtedly difficulties in the way of the petition as it stood. He could not tell what might happen with regard to a judgment now pending in the House of Lords. It might put the whole matter on a different footing.—His Lordship: You are issuing 60,000 fully paid shares as a term of wiping off 150,000.—Mr. Buckmaster said there might be other methods by which the same result might be arrived at without coming to the Court at all. As it stood, he should hesitate to ask his Lordship to deal with it. He asked that it should stand over generally with liberty to apply to restore it, though he thought his Lordship would not be troubled with it again.—The petition stood over accordingly.

ALTHOUGH I am seventy-five miles from a railway in a South African "dorp," I find reading the *C. & D.* from cover to cover pays, besides being interesting. (67/18.)

DOCTOR.—Have you consulted anyone else? Patient: I went to see a chemist, and he told me— Doctor (interrupting): Don't tell me that you asked advice of a chemist. No one except a lunatic would take the advice of a chemist. Patient: I was about to say that he told me to come to you.

## Births.

**JOSEPHS.**—At 66 Mildmay Park, London, N., on March 20, the wife of Philip Josephs, Old Street, of a son.

**MIDDLETON.**—At 4 Grafton Terrace, Acton, W., on March 21, the wife of Frank Middleton, chemist and druggist, of a son.

## Marriages.

**HUTTON—ROBERTSON.**—At Argyll Square United Free Church, Oban, on March 26, by the Rev. D. J. Martin, M.A., assisted by the Rev. J. Maccoll, M.A., of Glenlyon, uncle of the bride, Malcolm Hutton, M.A., B.Sc., M.B., to Margaret Helen Robertson, M.B., Ch.B., eldest daughter of Mr. Alex. Robertson, of Bellevue House, Oban. At Home, Shaw, near Oldham, Lancashire, on June 4 and 5.

**TILDEN—RAMIÉ.**—At Northwood Parish Church, on March 21, by the Rev. E. B. Backhouse, Vicar, assisted by the Rev. C. E. Ayerst, William Augustus Tilden, D.Sc., F.R.S., Dean of the Royal College of Science and Royal School of Mines, to Julia Mary, younger daughter of the late Mr. C. W. Ramié, formerly of Jersey, and of Mrs. Ramié, Ronceville, Northwood.

## Deaths.

**BALDWIN.**—At Sheerness, on March 9, Mr. Arthur Henry Baldwin, pharmaceutical chemist, late of Trowbridge, aged sixty-six.

**CAPE.**—At Northwich, Cheshire, on March 25, Mr. Herbert Capes, who until his recent retirement was the process manager from the inception of Brunner, Mond & Co.'s chemical-works at Winnington. Mr. Capes, who was sixty-two years of age, was a Freemason of a quarter of a century's standing; he also represented Winnington as a District Councillor and Poor-law Guardian, and was altogether a prominent man in local public affairs.

**DAVIES.**—At Lampeter, South Wales, on March 11, Mr. William Davies, chemist and druggist, aged thirty-nine.

**McMILLAN.**—At Nursing Home, Glasgow, on March 21, David McMillan, chemist and druggist, only son of the late John McMillan, chemist, Glasgow, aged thirty-two. We recently mentioned that Mr. McMillan had undergone a severe operation, and although good progress was made at first, a relapse set in at the beginning of last week. Mr. McMillan was respected by all with whom he came in contact, as was testified at the funeral on Saturday, when there was a large representation of the Glasgow retail and wholesale trade.

**SEWELSON.**—At 39 Cheetham Hill Road, Manchester, on March 13, Mr. David Sewelson, chemist and druggist, aged sixty-five.

**SHARP.**—At Leeds, on March 23, Mr. Henry Sharp, chemist and druggist, senior partner of the firm of H. Sharp & Son, manufacturing chemists, Park Mills, Armley, Leeds, aged eighty-one.

**TROTMAN.**—At Wandsworth, on March 25, Mr. Alfred Court Trotman, chemist and druggist, late of Cambridge Street, Hyde Park, aged seventy-five.

**WILKES.**—At Birmingham, on March 16, Mr. George William Wilkes, chemist and druggist, aged seventy-three.

**WILSON.**—At Edgbaston, Birmingham, on March 21, Mr. John Edward Wilson, one of the founders of the firm of Allbright & Wilson, chemical-manufacturers, Oldbury, aged seventy-three. Mr. Wilson, who was born at Kendal, died suddenly while attending a meeting at Edgbaston. He was a member of the Society of Friends and an active philanthropist. He leaves a grown-up family of five sons and three daughters.

**YOUNG.**—In London, on March 21, suddenly, Mr. James Robertson Young, chemist and druggist, younger son of the late Mr. J. R. Young, Edinburgh, aged forty-seven. Mr. Young was at one time on the London staff of Messrs. J. F.

Macfarlan & Co., and subsequently was in the retail business on his own account in Grange Road, Edinburgh. He leaves a widow and daughter.

## Personalities.

**MR. J. C. PENTNEY** has joined the board of directors of Messrs. John Pepper & Co., Ltd.

**MR. JOHN WILLIAM LEMMON**, dispenser, has been returned to the Norwich Board of Guardians.

**MR. JOHN S. SHEARMAN**, chemist and druggist, has been returned to the Yarmouth Board of Guardians.

**MR. H. R. BECKETT**, chemist and druggist, has been elected to the Tonbridge Urban District Council.

**MR. G. C. ROW**, chemist and druggist, has been re-elected a member of the Braintree Urban District Council.

**MR. THOMAS WILSON**, chemist and druggist, New Lenton, has been elected to the Nottingham Board of Guardians.

**MR. JOHN JAMES SHAWYER**, chemist and druggist, Swindon, has been appointed a Land-tax Commissioner for Wilts.

**MR. D. DAVISON**, pharmaceutical chemist, has again been returned as a member of the Cromer Urban District Council.

**ALDERMAN J. V. MAINPRIZE**, chemist and druggist, of Bridlington, has been appointed a Justice of the Peace for the East Riding of Yorkshire.

**MR. WALTER SHEWELL CORDER**, J.P., manufacturing chemist, North Shields, has been appointed a Land-tax Commissioner for Northumberland.

**THE REV. W. H. NORMAN**, M.A., who preached before the King at Biarritz on March 17, is a brother of Mr. Valentine Norman, chemist and druggist, Godalming.

**MR. R. B. SANDILAND**, pharmaceutical chemist, has been placed on the Commission of the Peace for Herefordshire as a magistrate for the ancient borough of Leominster.

**MR. WALTER BUCKLEY**, chemist and druggist, lectured before the Northumberland Coast Club, at Jullercoats, on March 19, on "The Star Fishes of the North-east Coast."

**MR. G. J. GOSTLING**, chemist and druggist, has been returned at the head of the poll to the Stowmarket Board of Guardians, and in the same position on a list of twenty-six candidates for the Urban District Council—a unique double event.

**MR. THOMAS PERKIN**, chemist and druggist, Tamworth, recently retired from the office of steward to the Tamworth and Lichfield Wesleyan Methodist Circuit, which he has held during the past eleven years, and the members recognised his services by presenting him with a marble clock on March 16.

**CHEMISTS** are to the fore in public life in Melton Mowbray. Mr. Josiah Gill has been returned at the top of the poll for the Urban District Council, of which he has been Chairman for the past four years, and Mr. R. W. Brownlow has also obtained a seat on the Council. Mr. Gill was also second on the list for the Board of Guardians.

A NEW Masonic County Lodge, "London Dorset Lodge, No. 3,221," was consecrated at the Holborn Restaurant, London, on March 7, by the Grand Secretary (Sir E. Letchworth), assisted by Bro. R. Clay Sudlow, the Rev. Canon Horsley, and others. The first Senior Warden is Bro. F. Bascombe, to whom the new lodge owes its inception.

On Saturday evening Mr. F. M. Fisk and the staff of the London branch of Parke, Davis & Co. entertained Professor Ryan, vice-president and secretary of the firm, to dinner in the Criterion Restaurant. Mr. Fisk presided, and after the usual loyal toasts, proposed the health of the guest, who replied in a forceful and happy speech. The evening was an exceedingly pleasant one.

**MASTER DAVID STAINER**, the nine-year-old son of Mr. J. W. Stainer, Ph.C., F.C.S., Folkestone, has been awarded the Princess Louise's prize for a "snapshot" drawing at the Royal Drawing Society. This is not the first time this young artist's ability has been recognised, and the "Times" critic refers to his work as "admirable in texture, vigour, and character." The drawing was reproduced in Tuesday's "Daily News."

OWING to his removal from Hull, Mr. W. Bousfield has resigned the secretaryship of the Jameson Scholarship Trust, which he has held since 1898. Mr. Bousfield has been connected with the Trust since its commencement. The scholarship is of the value of 50*l.* per year for three years, and is tenable at the University of Oxford or Cambridge. It was founded in 1874 as a mark of appreciation of the eminent services rendered to Hull by the late Mr. Robert Jameson during his three-years' tenure of office as mayor.

MR. W. B. FORDHAM has resigned his position as chairman of W. B. Fordham & Sons, Ltd, York Road, King's Cross, London, N., and has retired into private life. He is succeeded as chairman of the directors of the company by his brother, Mr. Edward Fordham, who has been engaged in the business for very many years. The other directors are Mr. W. H. Fordham, a son of the retiring chairman and a representative of the fourth generation of the Fordham family in the business, and Mr. A. J. Monshall, who also acts as secretary.

PROFESSOR FRANK RYAN, of Messrs. Parke, Davis & Co.'s, Detroit, U.S.A., was not allowed to leave London this week, after his too-short stay, before receiving the hearty good wishes of a number of friends connected with medicine and pharmacy, who met him at dinner in the Queen's Room of the Café Royal on Monday evening. The Professor, as mentioned in the *C. & D.* last week, has made a seven-months' tour of the world, crossing the Pacific to Japan, then on to India, and thence to Europe. Mr. F. M. Fisk, the European manager of the firm, met him at Marseilles, and together they visited the principal business-centres on the Continent, and so on to London. Although academic in pharmaceutical training (the way of pessimism), Professor Ryan declared on Monday evening that he is not in the slightest despondent about the future of medicine and pharmacy; changes have come and have been met; they will come, and it is the duty of those whose business they affect to adapt themselves to the changed conditions. This was in reply to the toast of his health, given by the Chairman, Mr. T. Maben, F.C.S. "The Future of Pharmacy" was spoken to by Professor Dixon, of Cambridge, and Mr. Walter Hills acknowledged the toast. In the same manner "Pharmacology" was toasted, Professor Greenish giving it, and Professor Cushney, F.R.S., acknowledging; so also "Chemistry," which Mr. A. C. Chapman, F.I.C., responded to, and "Preventive Medicine," Professor Sims Woodhead, of Cambridge, replying in a thoughtful and informative speech. Mr. F. M. Fisk was called upon for a few words before the exceedingly pleasant and sociable party dispersed. The proceedings were not of a public nature, but we may say that they eminently testified to the cordial relations of Professor Ryan's firm with the medical profession and representative pharmacists, while they afforded the guest an exceptional opportunity of gathering in an hour or two a fair idea of current thought respecting the progress of medicine and pharmacy.

## Trade Notes.

MESSRS. G. VAN ABBOTT & SONS, of Baden Place, Crosby Row, Borough, London, S.E., have issued a new showcard, which will help chemists to sell Van Abbott's diabetic foods. The cards may be obtained by communicating with the firm.

A MATTO'S DEMONSTRATION.—A *C. & D.* representative was present this week at a demonstration, by Mr. Leuthardt-Thornton, of the Mattos photographic printing-process. The Mattos Co., Ltd., 36 Arundel Square, Barnsbury, London, N., have had their paper before the photographic public for some time, but have now brought the process to such a state of perfection that it bears a public demonstration. The special features of Mattos are, briefly, the great variety of materials that can be sensitised and the many different tones that can be had by simple modification of the procedure. By simple fixing in plain hypo rich brown tones result, whilst with platinum and gold deep black and other cold tints can be obtained. Old baths produce fine sepias. The demonstration which we witnessed was in regard to toning prints on papers, wood, silk, satin, silk and Japanese vellum, and satisfactory results were yielded, although the best conditions were not available.

"ANALYTICAL NOTES" is the title which Messrs. Evans Sons Lescher & Webb, Ltd., give to the first number of a new annual which comprises notes collected from the records of their laboratory during 1906. The pamphlet comes to us on publishing-day, when it is not possible to do it the justice which it merits; but we observe that it is not merely a record of analytical data, for under several of the headings we note suggestive reflections, such as:

*Camphor-flowers* from China had a lower dextro-rotation than is usual. An attempt is being made to find out why. Artificial camphor examined (three samples) had a saffrol or terebinthinous odour, sp. gr. 0.983, and m.p. 165° C. One contained pinene hydrochloride. All were optically inactive. [This is the distinguishing characteristic of synthetic camphor, and suggests that the Chinese flowers contained synthetic camphor.—Ed. *C. & D.*]

*Cod-liver Oil.*—Several refractive numbers are given. *Jalap.*—B.P. quality is now obtained with great difficulty. The average resin-yield of twenty lots was 7 per cent., the range being 5.26 to 13.3 per cent. One gave as little as 4.2 per cent.

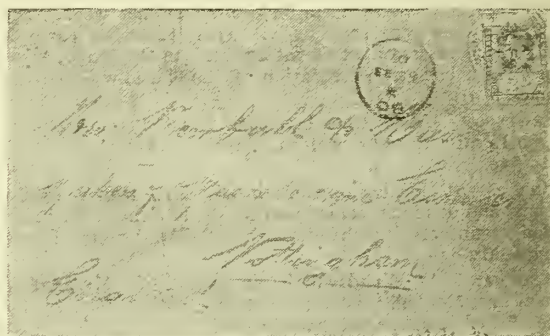
*Essential Oils* are well treated, figures for authentic oils being given.

*Opium.*—Undried samples showed 11.3 per cent. of morphine on the average.

These notes serve to show the nature of the publication, a copy of which will be sent to any *C. & D.* subscriber who writes to Messrs. Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool.

SEAMLESS HOSE.—Elastic hosiery with no seams possesses qualifications to recommend it to retailer and purchaser alike. For the purchaser wants to buy an article that will be easy and non-irritant to wear, and that will not wear out too soon; and the retailer's desire is to keep what the public will buy. All the virtues enumerated are claimed for Levett's seamless elastic hosiery, for which Messrs. F. Schutze & Co., of 89 Southwark Street, London, S.E., are the wholesale agents. The hose is seamless throughout, it is shaped anatomically correct, is made of the best materials, and presents a smooth even surface, inside and out. Particulars as to prices and directions for special measurements may be obtained by communicating with Messrs. Schutze. As far as we can judge, the Levett stockings mark a step in advance in the evolution of appliances for the treatment of *vari cose veins*.

MESSRS. NEWBALL & MASON have sent us the envelope from which this engraving has been made. It is in good



condition considering that it soaked for several days in the waters of the English Channel, being salvaged from the *Jedda*.

P., D. & Co. PRODUCTS.—We have received from Messrs. Parke, Davis & Co., 11 Queen Victoria Street, London, E.C., samples of Iodalbin capsules and nutritive liquid peptone. Iodalbin is a proteid combination of iodine, the element being present in the proportion of 21.5 per cent. The special therapeutic point is that Iodalbin passes unchanged through the stomach, absorption taking place in the intestine. Iodalbin, a reddish-brown powder, insoluble in water, is obtainable in bulk or in 5-grain capsules. The nutritive liquid peptone is a preparation of beef and malt, pre-digested, and so in a form for ready assimilation. Compounds are supplied medicated with creosote and guaiacol.

## Observations and Reflections.

By XRAYSER.

### M. Berthelot's Last Literary Work

was an article in the "Revue de Deux Mondes" criticising a scheme of spelling reform which, it appears, is being advocated in France, as another is here and in America. It was only published a week or so before the famous Academician's death. *A propos* of this subject, I wonder whether other people are as embarrassed as I always have been about the spelling of M. Berthelot's own name? There was another great French chemist, who died shortly before this one was born, with a very similar name, and reference seems to be always necessary to distinguish between Berthollet and Berthelot. When the history of the past and present centuries becomes indistinct—as it will in time, astonishing though that may appear to some of us—the work done by these two learned men will probably be credited to one individual, and inasmuch as at that time the Anglo-American-Japanese language will have become universal, it is likely that the person in question will have acquired the name of Bartlett.

### Berthollet and Berthelot

both figured prominently in the inauguration of new eras in chemistry. One was a pioneer of the new inorganic chemistry which came into existence just before the nineteenth century, the other contributed largely to the revolution of ideas which characterised the coming of the modern science of organic chemistry. Berthollet struggled for ten years against Lavoisier's antiphlogiston arguments. When he at last surrendered, he became one of the pillars of the new doctrines. He was associated with Lavoisier, Fourcroy, and Guyton de Morveau in the reformation of chemical nomenclature, and it was he who not long afterwards delivered the first attack on the theory crystallised in the most successful of their new names. He proved that hydrocyanic acid contains no oxygen, and that therefore oxygen is not the sole generator of acidity which at first it was believed to be.

### The Best Legend

about Berthollet is that during the Terror he appeared as an expert witness before the Committee of Public Safety for a poor wretch accused of supplying poisoned brandy to the army. "Dare you drink some of it yourself, Citizen?" asked the President, and the chemist took the glass offered to him and swallowed the contents. The prisoner had to be acquitted; but it was a risky thing to snatch a victim from Fouquier-Tinville. An interesting event in his scientific career occurred when Berthollet had discovered the nature of ammonia. He wrote about this to Cavendish in London. At the same time Cavendish wrote to him describing the experiments which demonstrated the composition of nitrous acid. These two reports, complementary to each other, and of immense importance in the new chemistry of that time, crossed in the post.

### Berthelot

has been referred to in some of the obituaries lately published as if he were the creator of the synthetic chemistry which has made such wonderful progress during the past fifty years. It was in this direction that Berthelot first achieved fame, and his discovery of acetylene in 1862 was undoubtedly an event in the development of the science of first-rate importance. But the revelations which led chemists to realise that the chemistry of organic bodies is of the same nature as the chemistry of inorganic substances

were the results of German labours. Wöhler's synthetic production of cyanate of ammonia in 1828, and his demonstration of its identity with urea, was the epoch-making event which corresponds with Priestley's discovery of oxygen in 1774. Berthelot was one year old in 1828. In 1832 Wöhler and Liebig, working on bitter-almond oil, found the organic radicle benzoyl, and Berzelius was so struck with the significance of this discovery that he suggested the substitution of the name of orthrine for benzoyl on the ground that this was the dawn of a new era. Kolbe followed with artificial acetic acid in 1845, and from that time the synthetic triumphs of laboratories, German ones principally, have been too numerous to catalogue. The crowning victory, which, we are assured, cannot be long delayed, the synthesis of albumen, is now being looked for from German chemists.

### The Medium's Prescriptions

quoted last week (p. 468) were easily the most wonderful things then recorded, if they were indeed the prescriptions of J. Forbes, M.D., one time of this world, now of some other. The chemist who dispensed them appears to be quite unbiassed in his belief concerning them. They were curiosities to him, and not much more. The learned readers of the *C. & D.*, the gentlemen who decorate their names with appended letters, will certainly not demean themselves by encouraging such credulity, and even the broad-minded Editor, I notice, only honours the narrative with second-sized type. Of course, this medical clairvoyance is a well-established business, or, as some would say, fraud. Mediums controlled by departed physicians have their "offices" in America, their "bureaux de consultation" in France. In his work on "Human Personality," the late F. W. H. Myers, whose good faith and ability were never questioned by anyone, relates a number of instances of medical control. A certain Miss A was controlled by a spirit who called himself Semirus, and she wrote prescriptions for a good many aristocratic persons. Miss A said of herself that she was quite ignorant of medicine, and often did not know the meaning of the names of drugs or diseases which she wrote; and Mr. Myers says of Miss A that he had the most absolute assurance of her scrupulous probity. Professor Lodge (now Sir Oliver, I believe) also testifies to remarkable clairvoyant diagnoses. It is noteworthy that the few eminent men of science who have condescended to investigate these phenomena have generally come out of the inquiry more than half convinced by them.

### Antidiphtheria Serum

may be all that Mr. Maben declares it to be, and no doubt the opinion of those who handle it is almost unanimous in favour of its efficacy. But it is too bold to claim that the Registrar-General's statistics demonstrate this efficacy "as clearly as anything can be demonstrated." Admitting the convenient croup figures, the fact remains that diphtheria, strictly so defined, was responsible for more deaths in England and Wales in the ten years after the serum was introduced than in the previous ten years. Moreover, the essential data are utterly insufficient to furnish any statistical conclusion. What we want to know is not so much the proportion of deaths to population as the proportion of deaths to cases; and still more important the degree of severity of the cases in any particular year. Lastly, Mr. Maben, having obtained a favourable figure by grouping croup with diphtheria, attributes the entire improvement to the serum. Is nothing to be credited to the improved sanitary and hygienic conditions, which are commonly believed to have lowered the death-rate generally?

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## Editorial Comments.

### International Medicine Standards.

FORTY-TWO years ago Continental pharmacists began to cry out for an international Pharmacopœia, and to-day the Governments of Europe and the United States have agreed to make certain preparations of toxic drugs similar in names and of the same strength in each of their Pharmacopœias. The agreement is embodied in a Blue-book, which is reprinted elsewhere in this issue. The event is of historic interest, but although the agreement is of a character that is bound to offend susceptibilities, yet as the unification is for international purposes and not necessarily for modifying national custom, criticism is to some extent disarmed. Our own Government appears to have set the example of reserving the right to modify the standards in detail according to progress in medical and pharmaceutical practice. The points in the agreement which are at variance with British custom may be briefly indicated:

Latin names of preparations follow the alphabetical order of the drug—thus:

ACONITI TINCTURA.

Syn. Tinctura Aconiti.

Belladonna tincture and extract to be made from the dried leaf, and not standardised.

Colchicum tincture to be half B.P. strength.

Digitalis tincture to be about twice B.P. strength.

Hyoscyamus extract to be made with alcohol from the dried leaf, and the tincture to be 1 in 10.

Ipecacuanha tincture will take the place of the wine (see Article 2) and double its alkaloidal strength.

Nux vomica to contain 2.5 per cent. of total alkaloids; extract 15 per cent. (about double B.P. strength), and tincture 0.25 per cent. (about two-thirds B.P. strength).

Opium tincture to be a fourth stronger in morphine than B.P.

Strophanthus tincture to be four times B.P. strength.

Sodium arsenate to be the crystallised salt.

Syrup of ferrous iodide half B.P. strength.

Cantharides tincture eight times B.P. strength.

Iodine tincture four times B.P. strength.

The strengths are expressed—e.g., as 10 per cent.—without explanation as to whether they are weight in weight (the Continental custom) or weight in volume (American and British custom).

Some of these changes are serious, and disturb the unifica-

tion in tincture dosage which was introduced into the 1898 British Pharmacopœia, but we have never been so enamoured of the latter change as to set it against a uniform 1-in-10 strength for tinctures of all toxic drugs. It is to be regretted that a total-alkaloids standard has been adopted for nux vomica, because brucine and strychnine vary in proportion; and an eminent pharmacologist informs us that brucine has quite the opposite physiological action to strychnine, so that under international conditions this drug and its preparations can never be uniform in strychnine action, although apparently uniform in alkaloidal strength. Here, however, the reservation made by our Government should enable the compilers of the British Pharmacopœia to improve upon the international standard in the light of medical and pharmaceutical progress. Much more might be said in regard to the agreement, but we think it is entitled to a sympathetic reception and a fair trial, consistently with the established customs of the contracting parties, such as the weight-in-volume rule which obtains with us. This could be adhered to with fair approximation to therapeutic uniformity in most cases.

### Patents and Designs Bill.

WE gave last week a brief *résumé* of the speech of the President of the Board of Trade on the occasion of the first reading of the Patents and Designs Bill. The Bill is now available, and in its scope goes even further than foreshadowed by Mr. Lloyd-George in recognising the two-sided contract entered into between the State and an inventor. The provisions look plain and businesslike as they appear in the Bill, and the wonder is that it has taken such a time to induce a Minister of the Crown to bring forward the measure. Patents are supposed to be granted to protect an inventor because he introduces a new industry into the country; but as of late years foreigners have obtained patents with the object of preventing the establishment of industries in this country, it is obvious that an evil has crept in directly antagonistic to the spirit of the patent-laws. This abuse of the privilege has been particularly rife in the case of chemical inventions, where it has been customary to draw up claims so as to make them include everything of a like kind. The inventor has not necessarily tried to make a title of the chemicals mentioned in specifications, and the trouble has come in after-years, when a real inventor has hit upon a new substance which could be possibly covered by one of the claims mentioned in a prior specification. There is no question of depriving a foreigner of what is his due, for it is quite well known that the deliberate purpose is to keep other inventors off a particular field of chemical invention; and not only that, but a wealthy syndicate may take up the claims in the law-courts, and if they do not win they probably ruin the smaller man by the recklessness of the proceedings. The new Patents Bill contains a provision giving the Comptroller power to ask for samples of the chemical invention, and the patentee will be required to manufacture the article in this country. The last provision is that not less than three years after the grant of the patent, application can be made for revocation on the ground that the patented article is manufactured "exclusively or mainly outside the United Kingdom." The conditions upon which petitions for the grant of compulsory licences can be made are improved by the Bill, and it is hoped these will be more successful than the licence-sections of the Patents Act, 1902, have been. There are also several provisions dealing with designs, one of which provides that registration can be cancelled in cases where a design is mainly or exclusively made abroad. To

Section 106 of the Patents Act, 1883, dealing with offences, is added a new sub-clause, which states that

The grant of a patent under this Act shall not be deemed to authorise the patentee to use the Royal Arms or to place the Royal Arms on any patented article.

The clause dealing with the use of the Royal Arms has been recast, but otherwise stands as it did in the earlier Act. Among the other clauses of the Bill is one which makes it an offence to apply the words "Patent Office" to a place of business.

### German Pharmacy Bill.

THE long-expected Imperial Bill for the regulation of pharmacy in Germany was placed before the Reichstag on March 19. It has been drafted by the Minister of the Interior, who lays special stress on the fact that it is only a draft upon which he invites discussion; but experience gained from previous invitations of this kind has taught the apotheker how futile they are. To grasp the importance of this Bill it must be remembered that every State in Germany has its own pharmacy law, and the object of the measure is to introduce a uniform system throughout the empire. The most salient point of the Bill is the fact already published in THE CHEMIST AND DRUGGIST (November 17, 1906, p. 753) that in future only purely personal concessions for pharmacies will be granted; so that on the death of the holder the concession will revert to the State. The Bill further provides that before opening a new pharmacy the State will assure itself, by consulting local authorities and pharmaceutical representatives, that one is necessary, that its existence is assured, and that it will not endanger the welfare of existing pharmacies in the neighbourhood. An applicant for a concession who has at any time been convicted for any omission of his professional duties, or has otherwise proved himself untrustworthy, cannot compete for a concession, which will be given to the applicant who has the longest unbroken record of work as an assistant in an apotheker in Germany, but preference will be shown to a younger competitor if he has proved by better conduct or by greater scientific attainments to be more trustworthy. In case of death of the holder of a concession, should he leave a widow and children in poor circumstances, the pharmacy may be managed for their benefit until either the widow should remarry or the children come of age. The concession can be withdrawn if the holder is condemned to the loss of civil rights or trespasses in any manner against his duties as an apotheker (this is a most elastic proposal, and can mean the ruin of an apotheker at any time—its interpretation depending entirely upon the authorities); also if he closes the apotheker without permission or allows it to be managed by another person. In respect to this we note that the holder of a concession will be required to conduct the business personally; but under certain circumstances, with the permission of the authorities, he can have it managed for him for a period not exceeding three months in the year. A clause in the Bill which is causing considerable anxiety to apothekers is one which will place them under the complete control of the authorities, who are given the entirely new right of imposing, without police proceedings, fines up to 15*l*. Inspection of pharmacies, including the books, may, according to this clause, take place at any time, this being in addition to the thorough revision which must take place once every three years. The Bundesrat will have under its control the issuing of regulations regarding: (1) The education of pharmacists; (2) the quality, preparation, and storage of medicines; (3) the sale of powerful drugs; (4) the power to restrict the sale of certain prepara-

tions to pharmacies only; (5) fixing a medicine-tariff; (6) the sale of patent and secret medicines; and (7) the "exercising of the art of healing by apothekers." The Governments of the various States will have to see to the arrangement, working, and inspection of pharmacies and to the compiling of the lists of drugs, stock, and apparatus that each apotheker must contain. The most important innovation is a proposal to empower the States to impose a special tax on pharmacies for the purpose of providing a fund to be used for the purchasing of existing privileged pharmacies, which will then be transformed into personal concessions. Prussia has already announced her intention of making use of this provision. Lengthy explanations are attached to the Bill, in which various reforms proposed since 1876 are recapitulated. The Bill as a whole meets in a large measure demands which our German *confrères* have long made for better protection from the State; but the accompanying restrictive provisions are not welcomed. In spite of the anticipated opposition from apothekers, the Bill is expected to pass, as its opponents are not agreed upon an alternative proposal.

### Taraxacum.

THE advertising-methods of an American proprietary-medicine manufacturer have recently created quite a considerable demand for dried taraxacum-root, and the English, Continental, and German markets have been swept almost bare of supplies, with the usual result that prices have advanced at all centres. A well-informed American correspondent sends us the following account of the state of affairs on the American market:

A rather unique feature of American drug-business during the past few weeks has been the advertising campaign of an Ohio firm in connection with the exploitation of a new proprietary medicine. Under the new Food and Drugs Act all such remedies must bear upon the label the percentage of alcohol contained therein, and at the present time the public are adopting a very critical attitude towards proprietary remedies in general and alcoholic ones in particular. The secular Press, or rather the sensational section of it, has succeeded in highly inflaming the public mind against "alcohol." The retail drug-trade, moreover, have become rather tired of being alternately used as a tool and fiercely condemned as substitutes, adulterators, and worse by the proprietary-medicine men.

At this psychological moment the Ohio firm mentioned have got into the game with a new deal. They are exploiting a preparation termed "compound kargon," which is advertised by means of large reading notices in the papers, in which the public are told of the wonderful value of a certain prescription. They are told that any druggist can dispense the preparation, which consists of fluid extract of dandelion 2 oz., "compound kargon" 1 oz., and compound syrup of sarsaparilla 4 oz. The public have bit in large pieces, and for once the retail trade is pleased, for, in addition to the profit on the "kargon," they obtain a percentage on the other two ingredients. Best of all, for the Ohio people, they do not have to put any "alcohol" percentage on their preparation's label.

Equally interesting is the fact that the demand for dandelion extract has been so large that the market has been exhausted, and the root commands now any price the lucky holder chooses to ask. The sarsaparilla market has stiffened for the same reason, and will probably advance shortly. The scheme is the most successful that has been sprung for some time.

About a fortnight ago orders for unusually large quantities of taraxacum were placed in London and on the Continent, and in some instances they could only be partially filled. This sudden demand found the markets somewhat bare, and values, as a consequence, advanced to 40s. per cwt. and over. It is not expected that prices will decline for some time, as deliveries in quantity are only taking place slowly. On the Continent the bulk of the taraxacum is dug in the autumn and spring, but, owing to protracted cold weather, less has been dug this year, and previous to the advance the collection of the

drug was below the normal. The present high prices will now stimulate collection, and as the supply is merely a question of remunerative values, plenty will be forthcoming, so that permanently high rates need not be expected. In the United States up to 30c. or 1s. 3d. per lb. has been paid, and 40c. to 50c. is asked.

### Odd People.

By 150 to 118 votes the House of Commons on March 22 rejected Mr. Straus's Metric System Bill. Mr. Straus almost contributed to its defeat by presenting a petition from, he said, 16,000 odd people; but the measure was really defeated on its merits. Manufacturers and merchants in this country are not prepared to give up our ancient and maybe antiquated system of weights and measures because another system, whatever it might be, would damage trade most seriously, especially in export of cotton goods to China and elsewhere. The time is not ripe for compulsory imposition of the metric system, and no amount of fun poked at our old one will help to displace it. The present powers enable any manufacturer or merchant who finds the metric system preferable in his business to adopt it forthwith, and already there are indications that this will be done more and more as years go by.

### Pictures as a Source of Liability.

A few weeks ago a chemist and druggist submitted to us a handbill for "back and kidney pills" containing no dutiable wording, but the picture here reproduced was inserted in the descriptive matter. We advised our subscriber to get an official opinion, as we have no record of any instance in which the picture of a person apparently suffering has involved liability to duty. Somerset House has declared the handbill to be liable on account of the picture. There may be several reasons for this novel decision, but one is that the picture, as plainly as is possible without words, says "backache," and the decision in *Ransom v. Sanguinetti* therefore applies. This, of course, necessitates an extension of the Board of Inland Revenue's interpretation of June 3, 1903, consequent on the decision, that interpretation referring solely to such designations as cough-mixture, and we think the drug-trade is entitled to some official pronouncement on the subject. In the meantime we would advise our readers to see that none of their otherwise non-labile medicines are not made liable by a picture, such as a foot with corns on it, always bearing in mind the fact that although a medicine is liable to duty it may be made exempt by disclosure.



### Calcium Salts in Pneumonia.

Sir Lauder Brunton's note on the use of calcium salts as cardiac tonics in pneumonia and heart-disease, to which we referred last week, has brought a cruelly sarcastic comment from Sir James Barr, of Liverpool, to the "British Medical Journal." He says "it would be difficult to find a better example of the disadvantages of writing in a hurry than the article of Sir Lauder Brunton." Sir James supposes calcium salts were so used first when a milk-diet was prescribed in pneumonia, and he says he has been using calcium chloride in pneumonia since 1872, with excellent results, we gather, which is the same reason that made Sir Lauder Brunton write about it. Sir James further refers to the craze for cylinders of oxygen and the use of strychnine, and hesitates

to "conjecture how many persons have been poisoned by it since that fateful day when Sir Lauder Brunton 'scribbled the other half of his paper in a railway train.'" The "B. M. J." should be good reading this week.

### The Public Spirit.

As will be seen from the list given in another column, quite a number of pharmacists have again been returned to represent the interests of the ratepayers on Boards of Guardians and other local bodies throughout the country. While the list is superficially a pretty good one, it is doubtful whether, considering the number of pharmacists on the register, members of the craft take the share which their status as—may we say?—professional men entitles them, and which their individual interests as ratepayers, and still more important, their duty to their calling, demand. While there are admittedly difficulties in the way in the case of many men willing to serve, it is fairly obvious that greater efforts would be made to secure adequate representation of pharmaceutical interests on local bodies if the extent to which those interests are affected was properly appreciated. One is rather apt to look upon the voluntary hospitals as the largest users of drugs and appliances in the nursing world, but a very cursory inquiry will show that in many places the voluntary hospitals are almost insignificant in comparison with the size of the infectious and other hospitals under the care of the Borough Councils and the Poor-law Infirmaries administered by the Board of Guardians. The questions arise in every case: Are local pharmacists satisfied that the drug-buying is on satisfactory lines and conducted in a manner unprejudicial to local pharmacy? Are the dispensing-arrangements satisfactory? In scores of small hospitals the dispensing is placed in the hands of the medical staff on the ground that there is not sufficient work for a qualified dispenser, and in the majority of these it would be possible, if the case were properly put forward, to arrange for the dispensing to be carried out by a local pharmacist or his staff, attending a fixed number of hours per week. These are only two of the many points which call for the watchful supervision of a man who knows the ground, and we make no excuse for again calling attention to a direction in which the interests of pharmacy urgently and increasingly need "direct representation."

### The Japanese Pharmacopœia.

We have a grievance to air in regard to the new Japanese Pharmacopœia. Some of our readers are directly interested in the fact that all imports into Japan of substances mentioned in the new edition of the Pharmacopœia must on July 1, 1907, conform to the characters and tests of the Pharmacopœia. In essence this is not an unreasonable requirement, but the Japanese language is not understood of the people in Europe, and as the Pharmacopœia is not available in any other language than Japanese, the regulation is one which cannot reasonably be conformed to. The Japanese Government has expressly declined to provide an edition of the Pharmacopœia in a European language or in Latin, with the result that export-trade to Japan is practically at a standstill until exporters know what standards they have to conform to. Much as Britishers esteem the Japanese, the feeling does not extend to mastery of the language, and if our allies are sincere in their friendship we think they ought to show it by relieving the stringency as regards the date when importations of drugs and chemicals must conform to characters and tests which will be unknown until a translation of the new Pharmacopœia is available in a European language. We think that the time of enforcement of the new Pharmacopœia should be extended from July 1, 1907, to January 1, 1908; and we trust that our

Foreign Office will, for the sake of international commerce, urge the desirability of the Japanese authorities giving assurance that goods which pass the tests of the present Pharmacopœia will be admitted into the country until the latter date.

### The Problem Solved.

[The conversion or tuition of Mr. Crosfield was undertaken by Mr. Idris. . . .]

A good deal of comment has been excited by the fact that Mr. Cross has removed his blocking motion to Mr. Winfrey's Pharmacy Bill, and Mr. Field his motion in regard to the extension of the Government's Poisons Bill to Ireland. . . . "Westminster Wisdom," *C. & D.*, March 23, p. 446.]

In days of old, so I've been told,  
When companies were free and bold,  
And sheep-dip-sellers turned us cold  
With tragic tales to tell, O!  
Of farmers clamouring for dip,  
Their sheep unwashed from nose to tip,  
Then chemists hung a drooping lip  
And each one eyed his fellow;  
For Dobbs proclaimed his clients' wants,  
The plague of weeds, the swarms of ants,  
And how each deadly insect pants  
For arsenic in solution;  
The Board of Agriculture sat  
And drank these tales of woe, and that  
Was quite enough, so swift and pat  
They ordered absolution.  
(The chemists glum  
Were stricken dumb,  
And Dobbs got absolution.)

'Twas then Camlachie's triumph came,  
And Cross was wafted into fame,  
But soon a new hand in the game  
Was lent by verdant Erin;  
The Cattle-traders took the Field,  
For Ireland ne'er her place will yield  
If there's a fight, so they appealed  
For just a little hearin';  
And Ireland's woes are seldom hid,  
So House of Lords the chemists chid,  
And Crewe just did as he was bid,  
Nor Wells nor Walsh could toss Field,  
Till Rymer Young said "'Tis a gross  
Mistake to think we've had a loss,  
Although they have both Field and Cross,  
Yet we have got a Crosfield!"  
(Now Field and Cross  
Can be no loss  
If we have got a Crosfield.)

### Spirit for Motors.

Owing to the increasing price of petrol the Motor Union recently appointed a Fuels Committee to inquire into the matter. As a result the committee has examined witnesses, among them Mr. Thomas Tyrer, who was examined upon the following memorandum, which he submitted:

In Germany the contract between buyer and seller of motor-alcohol is: "The price of 100 litres of 90-per-cent. (volume) denatured spirit shall be 20m. to 21m., depending on the period of the year, provided 5,000 kilos. are taken at one time; for less quantity, a greater price, up to 22.55m." The mode of denaturing is prescribed and spirit sold at *seller's* option, under two forms: (1) by means of 2 per cent. of wood-naphtha and  $\frac{1}{2}$  per cent. of pyridin, or (2) by means of  $\frac{1}{4}$  per cent. of a generally used denaturing agent,  $\frac{1}{4}$  per cent. of crystal-violet (aniline) solution, and 2 per cent. benzol. If the latter form of denaturing is resorted to the addition of benzol may not exceed 20 per cent. Special arrangements as to price are in such case needful. On the other hand, it is clear that this is a specially low price, for an extract from the "Spiritus Vereins" (official organ) gives the price of spirit at the distillery as 40m., less 16m. and 8m. mash tun and distillery taxes, and the ordinary *retail* price of motor-spirit is given as 30m. for 1906 and 23m. for 1907 per hectolitre (=22 gals.). English methylated spirit is now 1s. 4d. to 1s. 6d. per bulk gallon, which includes the 5d. per proof gallon surtax, equal to about 7 $\frac{1}{2}$ d. the bulk gallon (the

surtax is also levied on foreign spirit imported for methylation). This surtax is a charge imposed on buyers of spirit as a compensation to distillers for the interferences with their business caused by Excise regulations and supervision. It adds very materially to the cost of spirit. . . . In my opinion the condition for securing motor-spirit (alcohol) on the same terms as for industries will be the discovery of an indisputable denaturant.

In the course of his examination Mr. Tyrer fully explained to the committee why denatured spirit is dearer here than in Germany, and elaborated the foregoing points, speaking hopefully of future concessions by the Government if motorists really are in earnest in their desire to use alcohol instead of petrol. The most significant part of his views is the reference to an "indisputable denaturant" cheaper than wood-spirit. We may recall the fact that Graham, Hofmann, and Redwood, as well as Excise chemists, proved before and after methylated spirit was first introduced, that, however, it be distilled or purified, the spirit still retains evidence of the denaturant. This is the chief consideration of the Excise authorities; they must always have something to catch on to when they have reasonable grounds for suspecting dishonesty. Every denaturant other than wood-spirit, which has been suggested, can be completely removed from spirit, and the alcohol recovered in a pure state. This means a gain to the one who does it of something between 15s. and 20s. a gallon, and a corresponding loss to the nation. As methylated spirit is still double the price of petrol it has no chance to compete for motor purposes, and it can only be cheapened by removing the surtax (which means reversal of the Excise-system) and a cheaper denaturant than wood-spirit, as well as one equally abiding—something that will give the Revenue a feeling of security in allowing motor-spirit depôts throughout the country, twenty-five miles apart, many of them being beyond continuous supervision. Who will produce such a denaturant?

## Jalap:

### Note on Recent Samples on the English Market.

By T. G. JOYCE, B.Sc., F.I.C., F.C.S.

IN 1901 Umney communicated an exhaustive paper to the British Pharmaceutical Conference on "The Pharmacopœial Requirements for Jalap." In conclusion, he expressed the hope

that efforts will be made to improve the conditions under which the cultivation and collection of jalap are carried on, so that the standard of the British Pharmacopœia, 1898, which does not appear to be unreasonably high, may be, if possible, maintained.

Unfortunately, since that date no improvement seems to have taken place, so far as can be judged from the examination of samples on the English market. Various investigators have been at work on this subject during recent years, and the general opinion is that the yield of resin is not as great as formerly, and shows no sign of increasing. Consequently, it seems as if we must accept the facts as they stand, and it is a question whether we shall not have to be satisfied with a lower percentage of resin than that required by the British Pharmacopœia, 1898.

During the last few years I have been able, only with difficulty, to obtain samples satisfying the Pharmacopœia requirements, the highest percentage of total resin I have obtained being 11.46, while the majority of samples yielded amounts ranging between 6 and 8 per cent.

Besides the total resin present, the amount soluble in ether must not be neglected. This, according to the British Pharmacopœia, should not exceed 10 per cent. When the two conditions of total resin and amount soluble in ether have to be satisfied, the problem of obtaining a B.P. jalap becomes more difficult still. I recently obtained

the following figures for thirteen samples of jalap on the English market:

| Number of Sample | Percentage of Moisture | Total Percentage of Resin | Percentage of Ether-soluble Resin |
|------------------|------------------------|---------------------------|-----------------------------------|
| 1                | 7.44                   | 10.11                     | 10.77                             |
| 2                | 4.28                   | 9.01                      | 13.49                             |
| 3                | 5.23                   | 7.60                      | 15.37                             |
| 4                | 9.62                   | 9.30                      | 9.99                              |
| 5                | 10.82                  | 6.10                      | 12.63                             |
| 6                | 11.43                  | 7.39                      | 12.10                             |
| 7                | 11.65                  | 6.45                      | 8.09                              |
| 8                | 9.29                   | 5.62                      | 20.58                             |
| 9                | 11.69                  | 10.29                     | 33.56                             |
| 10               | 13.83                  | 7.67                      | 6.89                              |
| 11               | 10.89                  | 5.05                      | 14.06                             |
| 12               | 11.46                  | 5.76                      | 7.85                              |
| 13               | 10.25                  | 5.29                      | 11.99                             |

## Chemists' Windows.



### A Soap-sale Window.

THE above is reproduced from a photograph of a soap-display made by Mr. J. C. Wallbridge, F.S.M.C., chemist and druggist, St. Helens. It consisted of a variety of 3d. tablets of soap which were advertised at 2d. each, or two for 3½d., four for 6½d., and eight for 10½d. It was a successful sale. St. Helens is one of the hardest places in England for retailers. Co-operative stores are rampant there, and all retail shopkeepers have to meet their competition. In this case we have an example of what can be done by individuality. Mr. Wallbridge, while utilising in business his training as a chemist and optician (see his optical and photographic window in the *C. & D.*, November 24, 1906, p. 782), keeps in view local conditions, and a complete change of the window-exhibit every fortnight; but such displays as the soap one (i.e. one article) are made five or six times a year only.

ACCORDING to an article in the "Windsor Magazine" on bee-keeping in the Caucasus, the manner of collecting honey from the wild bees is extremely primitive. The whole swarm is completely suffocated by smoke, after which the comb, honey, and dead bees are all raked out together by means of an iron hook fixed upon an elastic cane handle, which enables the operator to scrape off all the honey and wax from the irregular-shaped sides of the wild hives. The whole mass, called "bochechnoi," is then placed in pails, brought for the purpose by women and girls. The "bochechnoi" is afterwards sold to dealers, usually Armenians, by whom the honey is separated from the wax. The latter is then melted down and strained.

## Potent Drugs.

International agreement respecting the unification of the pharmacopœia formulas for potent drugs.

ON November 29, 1906, representatives of the Governments of Great Britain, Germany, Austria and Hungary, Belgium, Bulgaria, Denmark, Spain, the United States of America, France, Greece, Italy, the Grand Duchy of Luxemburg, Norway, the Netherlands, Russia, Servia, Sweden, and Switzerland, agreed upon stipulations respecting the unification of pharmacopœia formulas for potent drugs, as a result of the Conference held in Brussels in September 1902. The agreement has been published as a Blue-book (Treaty Series No. 10, price 1½d.). It comprises six "articles." In the first are given the "Latin names and synonyms of drugs and preparations" and "pharmaceutical directions" in table form. In the subjoined we give these in paragraphs:

ARTICLE 1.—The medicinal substances . . . given below shall be designated, in the Pharmacopœia published by each of the contracting Governments, by the Latin names employed in this table, and shall conform with the directions indicated:

*Aconitum Napellus*, L.  
*Aconiti Tuber seu Tuber Aconiti*.—Use only the tuber of the current year, dried. Powdered drug to be used entire, without separation of residue.

*Aconiti Tinctura seu Tinctura Aconiti*.—Prepare by percolation with alcohol (70 per cent. by volume). Tincture to be standardised to 0.05 per cent. of total alkaloids.

*Atropa Belladonna*, L.  
*Belladonna Foliolum seu Foliolum Belladonnae*.—Use only the leaf, dried. Powdered drug to be used entire.

*Belladonna Tinctura seu Tinctura Belladonnae*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Belladonna Extractum seu Extractum Belladonnae*.—Prepare a solid extract (containing about 10 per cent. of water) by means of alcohol (70 per cent.).

*Colchicum autumnale*, L.  
*Colchici Semen seu Semen Colchici*.—Use only the seed.  
*Colchici Tinctura seu Tinctura Colchici*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Digitalis purpurea*, L.  
*Digitalis Foliolum seu Foliolum Digitalis*.—Use the leaf of the second year. Powdered drug to be used entire.

*Digitalis Tinctura seu Tinctura Digitalis*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Uragoga Ipecacuanha*, Baill.  
*Ipecacuanha Radix seu Radix Ipecacuanhae*.—Powder only the root-bark, rejecting the woody portion. The powder should have an alkaloidal strength of 2 per cent.

*Ipecacuanha Tinctura seu Tinctura Ipecacuanhae*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Ipecacuanha Sirupus seu Sirupus Ipecacuanhae*.—Prepare with 10 per cent. of the tincture.

*Hyoscyamus niger*, L.  
*Hyoscyami Foliolum seu Foliolum Hyoscyami*.—Use only the leaf.

*Hyoscyami Tinctura seu Tinctura Hyoscyami*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Hyoscyami Extractum seu Extractum Hyoscyami*.—Prepare a solid extract (containing about 10 per cent. of water) by means of alcohol (70 per cent.).

*Strychnos Nux Vomica*, L.  
*Strychni Semen seu Semen Strychni seu Nux Vomica*.—Alkaloidal strength (of powdered drug) 2.5 per cent.

*Strychni Tinctura seu Tinctura Strychni; Nucis Vomicae Tinctura seu Tinctura Nucis Vomicae*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.). Alkaloidal strength 0.25 per cent.

*Strychni Extractum seu Extractum Strychni; Nucis Vomicae Extractum seu Extractum Nucis Vomicae*.—Prepare by means of alcohol (70 per cent.). Alkaloidal strength 16 per cent.

*Opii Pulvis seu Pulvis Opii*.—Powder to be dried at 60° C. Strength in morphine 10 per cent.

*Opii Extractum seu Extractum Opii*.—Strength in morphine 20 per cent.

*Opii Tinctura seu Tinctura Opii*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.). Strength in morphine 1 per cent.

*Opii Tinctura Crocata seu Tinctura Opii Crocata seu Laudanum Sydenhami*.—Strength in morphine 1 per cent.

*Opii et Ipecacuanha Pulvis Compositus seu Pulvis Doveri*.—To contain 10 per cent. of Pulvis Opii.

*Opii Tinctura Benzoica seu Tinctura Opii Benzoica*.—Strength in morphine 0.05 per cent.

*Strophanthi Tinctura seu Tinctura Strophanthi*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.). Seeds not to be freed from fat.

*Sclerotium Clavicipitis purpurea*, Tul., seu *Clavicipitis purpurea*, Tul., *Sclerotium*.

*Secale Cornutum seu Ergotum Secale*.—Ergot to be not more than one year old, and kept whole.

*Secalis Cornuti Extractum seu Extractum Secalis Cornuti; Ergoti Extractum seu Extractum Ergoti*.—Prepare a watery extract and make up with alcohol (60 per cent.).

*Secalis Cornuti Extractum Fluidum seu Extractum Fluidum Secalis Cornuti; Ergoti Extractum Fluidum seu Extractum Fluidum Ergoti*.—Strength 100 per cent.

*Acidum Hydrocyanicum Dilutum*.—Strength 2 per cent.

*Laurocerasi Aqua seu Aqua Laurocerasi*.—Strength 0.10 per cent.

*Amygdala Amara Aqua seu Aqua Amygdala Amara*.—Strength 0.10 per cent.

*Phenoli Solutio seu Aqua Phenolata*.—Strength 2 per cent.  
*Arsenas Sodii seu Sodii Arsenas; Arsenicum Natrium seu Natrium Arsenicum*.—The crystallised salt, containing 36.85 per cent. of arsenic acid.

*Arsenicalis Liquor Fowleri seu Liquor Arsenicalis Fowleri seu Kali Arsenicosi Liquor*.—Strength in arsenious acid 1 per cent.

*Ferri Iodidi Sirupus seu Sirupus Iodeti Ferrosi seu Sirupus Ferri Iodati*.—Strength in anhydrous ferrous iodide 5 per cent.

*Cantharidis Tinctura seu Tinctura Cantharidis*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Iodi Tinctura seu Tinctura Iodi*.—Strength 10 per cent. Prepare with alcohol (95 per cent.).

*Lobelia Tinctura seu Tinctura Lobelia*.—Strength 10 per cent. Prepare by percolation with alcohol (70 per cent.).

*Cocainum Hydrochloricum*.—The anhydrous salt.

*Hydrargyri Unguentum seu Unguentum Hydrargyri*.—Strength 30 per cent.

*Antimoniale Vinum seu Vinum Antimoniale; Stibiatum Vinum seu Vinum Stibiatum*.—Strength in tartar emetic 0.40 per cent.

ARTICLE 2.—So far as regards substances other than those which appear . . . in Article 1, and which may hereafter be included in the Pharmacopœias, the contracting Governments undertake that the following rules shall apply:

(a) No potent drug shall be directed to be prepared in the form of a medicinal wine (*vinum*);

(b) Tinctures of potent drugs shall be directed to be prepared of the strength of 10 per cent. and by percolation;

(c) Fluid extracts of potent drugs shall be prepared of the strength of 100 per cent.

ARTICLE 3.—The contracting Governments shall adopt a normal drop-measure, the external diameter of whose outlet tube shall be exactly 3 millimetres—that is to say, which, at a temperature of 15° C. and with distilled water, shall yield 20 drops to the gram.

ARTICLE 4.—Governments which have not taken part in the present agreement shall be allowed at their own request to signify their adhesion to it. Such adhesion shall be notified, through the proper diplomatic channel, to the Belgian Government, and by it to the other signatory Governments.

ARTICLE 5.—The present agreement shall come into force one month after the date of its signature. It is understood, nevertheless, that the stipulations of Articles 1, 2, and 3 shall not become binding upon any one of the contracting parties until the publication of a new issue, or of a supplement, of its Pharmacopœia.

ARTICLE 6.—In case one or other of the contracting parties shall denounce the present agreement, such denunciation shall take effect only so far as regards itself, and then only six months after the day upon which such denunciation shall have been notified to the Belgian Government.

Reservations have been formulated by six Governments. Germany only undertakes to exercise its influence at the next revision of the German Pharmacopœia to bring the latter into conformity with the present agreement, and reserves to itself the right of introducing any modifications which appear necessary on account of the progress of medical and pharmaceutical science. Austria reserves the right of permitting the sale of powdered opium containing, as a maximum, 12 per cent. of morphine. The United States, like Germany, will exercise its influence. Great Britain reserves the right\* of modifications in detail as the progress of medical and pharmaceutical science may render necessary.

\* This right is acquired by all the signatory Governments. It is understood that the contracting parties which exercise this right will inform each other, reciprocally, through the intermediary of the Belgian Government, of any modifications introduced into the stipulations of the agreement.

from time to time, and of adhering to the agreement, and of denouncing it, with reference to each of the British Colonies or Possessions, separately. Portugal has not signed, but wants the vernacular Portuguese names as the primary denomination in its Pharmacopœia, with the Latin name as the first synonymous denomination. Sweden will put the denominations in a special supplement to the new issue of the Swedish Pharmacopœia, which is in course of preparation; and *Vinum Glycyrrhizæ Opiatum* will remain in it. Sweden also says that: "As the preparation of tinctures of drugs by percolation involves an increase in the price of these products, this method seems not altogether suitable for employment in a general manner."

## Positive Electricity.

THE last Friday evening discourse before Easter took place at the Royal Institution on March 22, when Professor J. J. Thomson gave a lecture on "The Rays of Positive Electricity." Professor Thomson explained that if a perforated cathode be employed in a vacuum discharge-tube, certain rays are found to stream through the apertures to the back of the cathode. These rays were first noticed about twenty years ago by Goldstein, who called them *kanalstrahlen*. The rays show a reddish colour as they pass through the gas, and they can be deflected by a magnetic or electric field, though not so strongly as the cathode-rays, and in the opposite direction—a circumstance which indicates that they are positively charged. The lecturer has been engaged in studying these rays during the last twelve months. To detect them he uses the luminiscent produced by their action on willemite, which is the most sensitive substance for the purpose. The willemite is powdered and attached, by means of water-glass, to a screen which forms the end of the discharge-tube. A fine pencil of the rays passing through a very narrow tube, such as is used for hypodermic-injection syringes, is directed on the screen, and the behaviour of the phosphorescent patch is studied as the rays are acted upon by electric and magnetic forces. The phosphorescence being too faint to be directly photographed, its position is mapped out by means of Indian ink painted on the outside of the tube. When the tube contains air at a moderate pressure the phosphorescent patch is spread out into a band with straight edges, but the boundaries become curved when the tube contains hydrogen. At lower pressures there is no continuous band, and the phosphorescence is split up into two distinct patches. Determinations for each of these patches of the ratio of the charge to the mass gave a maximum value of  $10^4$  (corresponding to the hydrogen atom) for one patch and half that value for the other. These two values are obtained whatever the gas or gases in the tube, whereas with the higher pressures, though the maximum value is the same, the lower values vary for different gases. Though further experiments are required to settle the question definitely, these results indicate that with very intense fields gases can give off positive particles which are the same for all gases.

## Recent Will.

MR. RICHARD STOCKDALE, chemist and druggist, Aireville, Blundellsands, who died on March 5, left estate valued at 1,724*l.* 3*s.* 8*d.*

MR. JONATHAN JESSOP, chemist and druggist, Halifax, who died on March 6, aged seventy-nine years, left estate valued at 1,732*l.* 7*s.* 10*d.* gross and 1,711*l.* 15*s.* 4*d.* net.

MR. WILLIAM GEORGE BLACKHAM, chemist and druggist, 675 Holloway Road, London, who died on February 26, aged forty-seven years, left estate valued at 1,248*l.* 3*s.* gross and 823*l.* 17*s.* 10*d.* net.

MR. FREDERICK JOSEPH GIBBINS, J.P., formerly proprietor of the Melyn Chemical-works, Neath, who died on February 3, aged seventy-six years, left estate of the gross value of 17,123*l.* 17*s.* 6*d.* and 10,252*l.* 1*s.* 1*d.* net.

THE exports of gambier from Singapore during 1906 amounted to 559,000 piculs, against 529,000 piculs in 1905. The United Kingdom received 136,000 piculs, the U.S.A. 258,000 piculs, and the Continent of Europe 165,000 piculs.

## Chemical Society.

### ORDINARY MEETING.

THE fortnightly meeting was held at Burlington House on Thursday, March 21, when the chair was taken by Sir Henry Roscoe, who commenced by referring to the losses the Society had sustained by the death of Professor Berthelot and of Mr. Robert Warrington, and his proposal that a message of condolence should be sent to Berthelot's son was adopted. He then called upon Professor Emil Fischer, of Charlottenburg, to give his paper on

### THE SYNTHESIS OF POLYPEPTIDES.

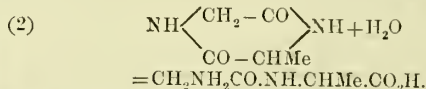
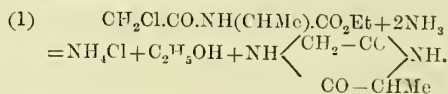
The author began by saying he had received great kindnesses from British scientists: the Royal Society had given him the Davy medal in 1890, and was the first foreign Society to recognise his work officially. Two years later the Chemical Society made him an Honorary Foreign Fellow, and later had asked him to deliver the Faraday lecture—an honour which he was reluctantly compelled to forego owing to a serious illness. In return for these attentions he had long wished to communicate a paper to the Society in person, and it was therefore a peculiar satisfaction to him to be able to be at that meeting.



DR. EMIL FISCHER.

So far the Professor had spoken in English, but he begged to be allowed to continue in German since, as he quaintly put it, a chemist stands in the relation of a parent to the substances he has discovered, and it is impossible for a parent to discourse of his children in any language but his own.

The various amino-aliphatic acids have formed the starting-points in this series of syntheses, and the preliminary work has involved the discovery of methods of synthesising and purifying these substances in large quantities and of means of coupling them up to form the polypeptides. The term "peptide" is used to designate the residue of an amino acid; thus glycyl-glycin is a dipeptide, since it contains two glycine residues. Of the many methods of synthesis so far employed that depending on the action of ammonia on esters of the  $\alpha$ -chloroacylamino-acids has proved the most fruitful. In this reaction a diketopiperazine is first formed, which on hydrolysis by acids passes into the polypeptide. Thus in the case of one of the simplest polypeptides, glycyl-alanine, the following equations represent the reactions which occur:



The reactions go beautifully for the lower members of the series, but become more difficult as the substances sought are more complex, and Professor Fischer's success in preparing the deca- and undeca-peptides, the most complicated bodies yet synthesised, is due to his peculiar genius for inventing means of inducing substances to react with each other. In one case, for example, when all other means had failed, he heated the reaction-mixture in bottles half filled with glass beads, the whole being kept vigorously agitated.

These polypeptides closely resemble the natural proteins in many ways; thus, they are mostly soluble in water and insoluble in alcohol, are precipitated by phospho-tungstic acid, and give the biuret reaction.

The Chairman, in thanking Professor Fischer for his

paper and congratulating the Fellows who had been privileged to listen to it, incidentally administered a gentle rebuke to Dr. Armstrong, who, as he said, according to his custom, made a few remarks recounting the advantages enjoyed by the German chemist and the disadvantages suffered by his British *confrère*. In Sir Henry's opinion, "duty-free alcohol" and ample funds are comparatively unimportant matters, and the lack of epoch-making discoveries in this country is due to the fact that we have not an Emil Fischer among our organic chemists.

Professor Kipping then described a new member of the series of silicon hydrocarbons—benzylmethylethylbromovylsilicane—and the resolution of its sulphonic acid into its optical isomerides, and, in passing, drew from Professor Fischer an explanation of his use of the term "partially racemic" in relation to some of the polypeptides which he has deracemised. Mr. Fenton next described the reduction of carbon dioxide to formaldehyde, and Dr. Moody followed with an experiment illustrating the mechanism of the rusting of iron. French nails were placed under water in a glass cylinder and covered with an ordinary filter-paper. After a time it was observed that while the liquid below the filter-paper, and in immediate contact with the nails, was clear, that above the paper was turbid with rust, whence it was argued that the iron dissolved, forming a solution of ferrous bicarbonate, which was then oxidised at the surface, yielding rust. The other two papers read were not of general interest.

#### ANNUAL GENERAL MEETING.

A goodly number of Fellows assembled in the Society's house on Friday, March 22, at four o'clock, for the purpose of receiving the report of the Council and of the Treasurer, and electing office-bearers for the ensuing year. For this part of the business the meeting was only open to Fellows, but when the retiring President (Professor Raphael Meldola, F.R.S.) gave his address the meeting became public. The report of the Council showed an increase of seventy-five in the Fellowship, the number on December 31, 1906, being 2,860. The report was adopted, and the way thus made clear for Dr. Alexander Scott, F.R.S. (the Treasurer), who, by means of the blackboard, showed the meeting, in the course of a minute or two, how matters stood financially compared with 1905, when there was a deficit of 305*l.*, while in 1906 there was a surplus of 741*l.* Various economies have been effected, and Dr. Scott pointed out that the indexes are now compiled on the card system, so that when the collective index has to be printed there will be very little additional expense. He further mentioned that during the year the residue (33*l.* 12*s.* 3*d.*) of a thirty-year-old legacy from Mr. Henry Dircks had been received, the total amounting to 840*l.* 5*s.* The Perkin Jubilee fund adds 2,700*l.* to the Research fund. Votes of thanks to the officers and auditors having been accorded, Professor Meldola commenced his address, and, as he had a severe chill, he sat while he read it. The subject was

#### THE POSITION AND PROSPECTS OF CHEMICAL RESEARCH IN GREAT BRITAIN.

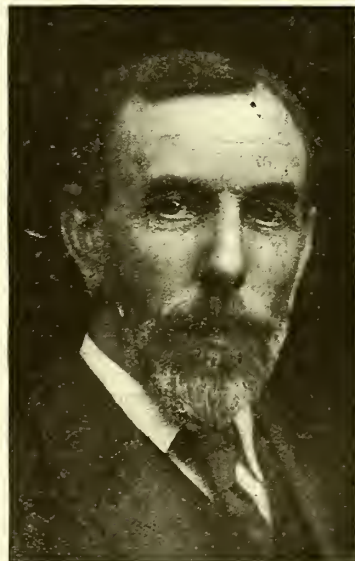
It was a most interesting discourse, but too long to be read in full, two or three sections being omitted. We commend its perusal to the Fellows when it is printed in the "Transactions" of the Society. Judging from the communications to the Society during the past decade, Professor Meldola showed that the output of original work in quality and quantity is on the increase, and there are more workers. He told the new race of workers that original research is the greatest weapon that can be used in struggling with the secrets of Nature, and commended such work as the highest, if not the only, means for a man's development in his own branch of science. The attitude in Great Britain to original research was then touched upon, and this, Professor Meldola said, is either apathy or indifference; in fact, research as a cult is not understood in this country, as the doctrine of payment by results is applied in the narrowest sense. He thought that we want the equivalent of a Minister of Public Instruction, and that an imperial view of research should be inculcated in workers. The second section of the address dealt with the jubilee of the coal-tar

industry and its lessons, but it was not read, although the President said that it meets with the approval of Sir William Perkin. In the third part he dealt with the question, "Is the output of original research in this country equivalent to the capacity of the nation?" He examined the number of communications to the Chemical Society and other sources of publicity, but, as an overwhelmingly large proportion of them are published by the Society, he took them as fairly representative of the whole. He deduced from his examination of the work, and the rigid sifting, that communications must go through at the hands of experts on the Publishing Committee, that the standard of quality is maintained at a high level, but he believed we are not getting as much as we ought from the potential talent. He then dwelt upon the retarding influences to research here, grouping independent research laboratories, including that of the Pharmaceutical Society and the Wellcome Chemical Research Laboratory. The second group comprised educational establishments, and the third factories where research, being purely for trade purposes, cannot be expected to be communicated to the world at large. Dealing with educational establishments, the President said, in effect, that the only Universities which are really creating distinct schools of chemists are Cambridge and Victoria, and no other University is creating a school of chemists in the Continental sense of the term. The work at other institutions (including those for technical education) was examined, and the deductions drawn supported this view. There are in London twenty-three polytechnics and in the provinces 110 (founded with the "whisky money"), and in not a single one of these have the teachers opportunity for or time to devote to research. The net result is that these schools where no research goes on degenerate into cramming establishments. The examination system was also commented upon, and there was some plain speaking about the direction of technical institutions, Professor Meldola saying that the committees show too much respect for the office staff, consisting of a registrar and clerks. In only one of the metropolitan institutions is the principal a chemist. This is at the Sir John Cass Technical Institute, and the principals elsewhere are mostly physicists. The next part of the address dealt with research in factories, and practically the same conclusion was arrived at. Finally Professor Meldola discussed the checks upon wastage, and advocated more liberal endowment of technical institutions and more research scholarships. The general conclusion was that although things are not so satisfactory as we could wish, prospects have been improved during the past decade.

Professor Thorpe moved a vote of thanks to the President in a highly appreciative speech, and this was seconded

by Professor J. M. Thomson and carried. The President then announced the result of the ballot for the election of new officers, the mention of Sir William Ramsay's name as the new President being received with applause. New Vice-Presidents are Dr. J. J. Dobbie and Sir Alexander Pedler, F.R.S., and Dr. Horace Brown succeeds Sir William Ramsay as Foreign Secretary. The Fellows recommended by the Council as ordinary members include Mr. G. T. Beilby, Dr. Hodgkinson, Mr. Grant Hooper, and Dr. H. R. Le Sueur as new members. A

Fellow had nominated Mr. F. H. Streatfeild, but the Council's selection was supported by the meeting. The



SIR W. RAMSAY, K.C.B.

President then adjourned the meeting until the same evening at seven o'clock, when

### THE ANNUAL DINNER

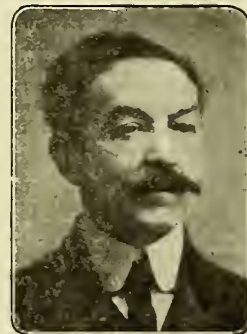
was held at the Whitehall Rooms of the Hôtel Métropole. The gathering was exceptionally brilliant, and though the speeches were somewhat dull it was agreed that the function was one of the most successful in the history of the Society. Professor Meldola presided, Sir William Ramsay being his *vis-à-vis* at the central spur-table. Other Chairmen were Dr. M. O. Forster, Dr. R. Messel, Dr. Alexander Scott, Dr. Horace Brown, Dr. H. Müller, and Professor A. W. Crossley. The President was supported on the right by Lord Rayleigh, Dr. Emil Fischer, Sir J. A. Cockburn, and Sir A. W. Rücker; and on the left were Lord Kelvin, Sir J. W. Barry, Sir W. H. Perkin, Sir Archibald Geikie, Dr. George Lunge, and Mr. Herbert Samuel, M.P. A goodly number connected with pharmacy were present, including Dr. H. Barger (Wellcome Research Laboratories), Mr. F. M. Fisk, Mr. H. C. T. Gardner, Professor H. G. Greenish, Dr. T. A. Henry, Mr. C. A. Hill, Mr. J. Humphrey, Dr. H. A. D. Jowett, Mr. T. Maben, Mr. Peter MacEwan, Sir Alexander Pedler, Dr. F. B. Power, Professor F. Ryan (Detroit), Sir J. Wilson Swan, Mr. Thomas Tyrer, and Mr. J. T. Ainslie Walker. Mr. J. Rymer Young (President of the Pharmaceutical Society) was also an invited guest. After the loyal toasts, that of "The Chemical Society, coupled with the name of the President," was given by Lord Rayleigh, who spoke pleasantly, and, referring to his early ventures into chemistry, mentioned having burned his fingers with phosphorus when he was thirteen. Professor Meldola, in reply, spoke in similar strain to his discourse of the afternoon. We may here note that there was no interval between the speeches, each speaker following the other as quickly as the toast-master could call upon them. Sir William Ramsay, in giving "Scientific Societies," discovered that Eve was the first person recorded to have been engaged in the pursuit of knowledge. Lord Kelvin, on rising to make the principal response, was most heartily received, and made an interesting speech, in which he mentioned that chemistry is simply force, and he alluded almost sarcastically to recent change of opinion in regard to the atom, speaking of electrons, corpuscles, and so on as being merely high-sounding words for what he preferred to call "chipped atoms." He showed how inconsistent such an idea is with the conception of the atom. Alluding to Lord Rayleigh's phosphorus-experiment, Lord Kelvin said he had burned his own fingers with phosphorus when he was eighty-two. That was on the last day of April 1906, and for so old a person as himself the first day of April would have been more appropriate for the experiment. Professor H. E. Armstrong proposed "Education," and made a very forcible speech in regard to the neglect of original research in our oldest Universities. Mr. T. H. Warren (Vice-Chancellor of the University of Oxford), Sir W. A. Rücker, and Sir J. Wolfe Barry acknowledged this toast. Professor T. E. Thorpe, in the absence of Sir Henry Roscoe, gave "The Guests," coupled with the names of Dr. Emil Fischer and Professor J. A. Ewing. Dr. Fischer, on rising to reply, was unable to proceed for a few minutes, owing to the exceedingly hearty applause. Speaking in German, he referred to the brotherhood of science, acknowledged the appreciation which had been extended to his own work, and expressed a high opinion of the good work that has been done for English chemistry by the Chemical Society. According to all rules and precedents, Professor J. A. Ewing, Director of Naval Education, who followed, should have made a quite formal reply. If he had done so, the Fellows would have missed a most amusing five minutes. He referred to Dr. Fischer's polypeptides discovery, which he said has put us on the way of obtaining synthetic beefsteak, and this reminded Professor Ewing of the well-known picture with the words, "Guard, am I right for Bovril?" The proceedings concluded about eleven o'clock.

A FRENCH CUSTOMS CIRCULAR just issued announces the temporary admission of bromine for use in the manufacture of bromide of sodium and bromide of aluminium; also iodine for manufacture of dry iodide of sodium.

## Winter Session.

### Association Presidents.

THE Brighton Junior Pharmacy Club is the youngest of chemists' assistants' associations in Great Britain. It was started two years ago by Mr. James Shilton, chiefly for social and recreative purposes, and has proved of great benefit, particularly to those who have arrived as strangers in town, as it helps them to form companionships for their spare time. The home of the club is an Esplanade arch which has been comfortably furnished. Lectures, discussions, and an occasional smoker enter into the programme, and for these a larger room is engaged. Mr. Shilton has been president from the outset. He served his apprenticeship with the late Mr. Wm. Sumner, Ph.Ch., Birmingham, and afterwards was assistant to Mr. Wm. Smith, Sutton Coldfield, and four years with Messrs. Banks & Morris, Birmingham. He passed the Minor in 1877, and opened a business in Lozells, Birmingham, disposing of it at the end of three years to go into business in Walsall, where he was eleven years. Since then he has acted as branch manager for Mr. Magor, Birmingham, then was four years with the Sussex Drug Co., and is at present on the staff of Boots, Ltd., at Brighton.



MR. SHILTON.

### Brighton Association of Pharmacy.

At a meeting of this Association on March 21 at the Odd-fellows' Hall, Queen's Road, Brighton, Mr. W. Lamond Howie, F.C.S., gave a lantern-lecture entitled "Our Scottish Alps." The President (Mr. W. H. Gibson) was in the chair, and there was a good audience, including many ladies and friends of the members. The lecture was well received, the beautifully prepared slides being much appreciated.

### Three Towns Chemists' Association.

A MEETING of the Junior Section was held in the Library on March 21, when Mr. Frank J. Barge gave a lecture on "The Materia Medica of the Roots of the Pharmacopœia." The lecturer was warmly thanked by the Chairman (Mr. Cannon) on behalf of the meeting. Mr. J. T. Collis (Messrs. Evans Sons Lescher & Webb) congratulated the Association, of which he has been an honorary member for many years, on its continued vitality.

### Bath Pharmaceutical Association.

At a meeting held on March 21, Mr. Olds presiding, a paper on the B.P. liniments was read by Mr. J. W. Sampson, F.C.S. He gave details of preparations, and suggested several points for the improved or quicker methods than those of the Pharmacopœia. He referred to lin. camphoræ, and advocated the entire avoidance of heat, and that both ingredients should be weighed in order to obtain a definite percentage strength. He gave a useful and quick method for estimating camphor in the liniment. In regard to lin. pot. iodid. cum sapone, he presented five different samples made from different recipes, and said that the B.P. directions would be improved by ordering the soap to be dissolved in a tared dish and any loss by evaporation to be made up, and also to omit the "trituration till cold," a little trituration only producing a better cream.—Mr. Sampson was heartily thanked for his contribution.

### Midland Pharmaceutical Association.

A MEETING was held at the Grand Hotel, Birmingham, on the evening of March 26, Mr. H. H. Jones in the chair. Mr. E. W. Mann read a paper on "Olive-leaves," which Sir James Sawyer has recently reintroduced as a remedy. Mr. Mann referred to Daniel Hanbury's notes "On the Febrifugal Properties of the Olive" published in 1854, and showed specimens of the leaves of the olive, the tincture, and soft extract. Mr. Mann also showed specimens of diosphenol

(*Barosma camphor*) which had spontaneously crystallised from a batch of oil of Buchu distilled from several hundred-weight of leaves of *Barosma betulina*, and which had been recrystallised from alcohol; of *Hyoscyamus muticus* containing 0.91 per cent. total alkaloids; and of European-grown *Cannabis sativa* containing but 4.5 per cent. of resin, as compared with 11 or 12 per cent. present in the Asiatic drug.

### Exeter Chemists' Association.

A MEETING was held on March 26, Mr. Weston Aplin presiding. It was decided to have a supper on May 1.—Delegates were appointed to attend the meeting of the Pharmaceutical Federation in London on May 8, when Mr. Cyril Kirby is to give an address on recent legislation affecting chemists, and a representative of the Town Tenants' League is also to speak.

MR. ROWSELL'S CANDIDATURE.—On the motion of Mr. D. Reid, seconded by the President and supported by Mr. Milton, it was unanimously decided to solicit from the various pharmaceutical associations in the country the support of its members to the candidature of Mr. P. F. Rowsell, J.P., for the Pharmaceutical Council.

The offer by Messrs. Burroughs Wellcome & Co. of a copy of Remington's "Pharmacy" as a prize for assistants and apprentices was left in the hands of a committee consisting of the President, Mr. Reid, and the Hon. Secretary (Mr. H. Wippell Gadd), with the suggestion that the examination should be on dispensing. A vote of thanks to the firm was passed.

### Wolverhampton Chemists' Association.

A MEETING of this Association was held on March 20, when there were present Messrs. Warner (President), Dunn, Weaver, Fellows, Forster, Coombe, Stanway, Rothwell, Gibson, Godsell, Bowdler, Phillips, Goodwin, Willcock, and Coleman.

REMINISCENCES.—The President read a paper entitled "Reminiscences of Pharmacy Thirty Years Ago." He was apprenticed in 1875 to Mr. Golding, Shrewsbury, and in the course of the paper he gave interesting comparisons between the state of pharmacy thirty years ago and now. The growth of stores opposition and grocers was referred to, the author pointing out that this competition had not been an unmixed evil. It had been the means of waking up the chemist to the commercial possibilities of his business, and, provided the title is secured, there is no fear that individual pharmacies will become extinct. Mr. Stanway, in the discussion that followed, mentioned that it was exactly fifty years that day since he started his career in pharmacy. He has remained in the same district (Horseley Fields) ever since.

BENEVOLENT FUND.—Mr. Gibson handed round a collecting card for the Benevolent Fund, and the amount obtained was made up to five guineas, which is to be sent as a donation from the Association.

LIBELLING CHEMISTS.—Attention was called to the advertising campaign which is being carried on in the Press on "substitution," the statements being characterised as "false, derogatory, and almost libellous."

### Cheltenham Chemists' Association.

A MEETING was held at the New Inn Hotel, Gloucester, on Thursday, March 21, Mr. John Fletcher (President) in the chair. Messrs. W. Barron, Freshfield Reynolds, S. J. Coley, W. Marchant, W. Minchin, H. B. Clark, W. H. Hampton, C. H. James, J. Ward, and W. H. Hill (Hon. Secretary) were also present. Messrs. Lloyd and Hands were elected members. Mr. Freshfield Reynolds opened a discussion on

#### CO-OPERATIVE PHARMACY,

a possible defence against existing co-operative methods, and claimed that his more than fifty years behind the chemist's counter constituted a fairly good time to be familiar with the conditions of life and labour which form "the daily task and common round" for most of us. The problems which most need solution for us now and for the future seem to be, he said, how to meet outside competition and how to exist on lessened profits. What are the prospects of lessened outside competition by limited companies of unqualified persons? Can we look with any confidence for help from Parliament? Even the protection of titles may

not be secured. The attraction which service with these companies has for some of our younger qualified men constitutes a very important difficulty to the legitimate pharmacist. After mentioning some of the supposed advantages, Mr. Reynolds pointed out the prospects which face the young man when he wishes to settle down to family life and responsibilities, and that the system which he has helped to sustain limits his own chances of advancement in a business career. Like Esau, in a hungry moment he has sold his birthright for a mess of pottage, and in so doing has affected injuriously the whole craft. If there was sufficient *esprit de corps* among us the remedy would not be far to seek. In which way can we look for relief? There is clearly truth in the old saying, "In union there is strength." The union of brains, of money, of personalities, of several centres of businesses, etc., may, under favourable circumstances, secure a unity of interest and a power of enterprise which separate and individual efforts can hardly attain. Mr. Reynolds suggested how the idea could be worked out, and a very interesting discussion followed, in which Messrs. J. Fletcher, H. B. Clark, S. J. Coley, W. H. Hill, and others took part.

## Festivities.

### The Ladies.

ON Thursday, March 21, a social evening, arranged by the Association of Women Pharmacists, was held at Dr. Williams's Library, University Hall, Gordon Square, W.C. There were present a large number of members and their friends, and the evening was a great success.

### Preston Whist Drive.

A WHIST-DRIVE and social evening in connection with Preston Chemists' Association was held on March 21, and proved a success, both socially and financially. Mr. Williamson (President) distributed the whist-drive prizes, which were as follows:—Ladies: (1) Mrs. F. Mercer, (2) Mrs. Walmsley, (consolation) Mrs. W. F. Livesey; gentlemen: (1) Mr. W. F. Livesey, (2) Mr. J. F. Burnett, (consolation) Mr. F. Mercer. Songs were given during the evening by Miss Hartley and Mr. E. Topping. Votes of thanks to the committee and the Secretary (Mr. H. S. Freeman) brought a pleasant and enjoyable evening to a close at a little after midnight.

### Square Football Club.

THE annual Old Boys' match took place on Saturday, March 23, and resulted in a victory for the present students by 7—0. Some excellent play was exhibited by the past students, whose team consisted of Messrs. Happold, Owen, Paterson, Warrick, Ross, Moore, White, Allen, Dewhurst, Hewlett, and Hirst. The present team included Messrs. Gibson, Curtis, Bellamy, Kilby, Loughlin, Carter, Sanders, Harvey, Adams, Ridley, and Gardner. Afterwards tea was served at the Kensington Hotel, and a smoker followed, at which a large number of past and present students were gathered together. An excellent musical programme was rendered by Messrs. Owen, Paterson, Allen, the "Minor Quartette," Cook, Coe, Curtis, Gibson, and Pierson. The humorous sketches and songs by Mr. Gibson were highly appreciated. During the evening the following toasts were honoured: "The Old Boys," proposed by Mr. G. F. Morrell, responded to by Mr. W. H. Allen; "The Square Club," proposed by Mr. W. Owen, and replied to by Mr. T. Bellamy (captain) and H. Adams (vice-captain), the latter making a special reference to the Old Boys abroad; "The Secretary," proposed by Mr. M. W. Bell, and replied to by the Secretary, Mr. G. H. Pierson. A vote of thanks was also accorded to Mr. Pierson for presiding at the piano. Altogether it was a very successful evening.

### Dining at Grimsby.

THE eleventh annual dinner of the Grimsby Chemists' Association was held at the Oberon Hotel on March 21. The President (Mr. C. Willson) was supported by Mr. G. T. W. Newsholme, Dr. G. A. Grierson, Messrs. S. Daniel, F. W. Dennis (Divisional Secretary, Louth), J. W. Hull, S. T. Haddlesley, H. J. J. Melsom (Postmaster), E. P. Rogers,

S. Taylor, R. J. Watson (Divisional Secretary, Caistor), W. Whyatt, and officers and members of the Association. Dinner and the loyal toasts being disposed of, Mr. H. W. Colley proposed "The Pharmaceutical Society." Mr. Newsholme, in the course of his reply, said the chemists of the country lacked the persistence necessary for good legislation, and it was highly essential that every division should keep in touch with members of Parliament and keep them in touch with the general requirements of pharmacists. He dealt at length with the titles question, and said there was a great battle before them in the House of Commons. "The Grimsby and District Chemists' and Druggists' Association" was given by Mr. Hull, and Mr. F. W. Heely (Hon. Secretary) replied. Mr. Heely said members were showing more interest in the work of the Association, but he would like to see a junior branch formed, for the Association has a library of valuable books that would greatly assist unqualified juniors. Mr. R. J. Watson gave "The Medical Profession," and Dr. G. A. Grierson, erstwhile pharmacist and now the youngest medical practitioner in Grimsby, spoke in a very entertaining manner in reply. "The Visitors" was submitted by Mr. C. Dewing and responded to by Mr. E. Daniel and by Mr. H. J. J. Melsom. "The President, Vice-President, and Council" was the concluding toast, given by Mr. J. C. White, and replied to by the President. The company was musically entertained by Messrs. E. Keightly, Archer, Bullough, Cook, Dewing, Harris, Robinson, and Daniel, while Mr. S. Taylor gave a recitation.

### A Trigesimal Dinner.

ABOUT two hundred members and friends of the Chemists' Assistants' Association met in the International Hall of the Café Monico, Piccadilly, on March 21, on the occasion of the Association's thirtieth annual dinner. The Chairman was Mr. J. Clark (the President), and the sub-chairmen were Messrs. Arrowsmith, Brittain, Hickey, Latreille, Martin, Northey, Pearson, Present, Rogerson, Solomon, Shillecock, and Warrick. Supporting the President were Mr. T. H. W. Idris, M.P., Mr. J. F. Harrington (Vice-President Pharmaceutical Society of Great Britain), Dr. Hunter Richards, Mr. H. Cremer Cooper, Dr. Howell Evans, Dr. J. Cantlie, Mr. Thomas Tyrer, Mr. John C. Umfrey, and Mr. Edmund White. Among others present were Messrs. Boyce (Baiss Bros. & Stevenson), R. B. Bennett, R. Blackie, L. Cooper, J. Harcombe Cuff, J. J. Paterson, B.Sc., Frederick Harvey, Dr. H. A. D. Jowett, F. Curry, E. Linstead (Burroughs Wellcome & Co.), Simpson, and H. C. Wright (Wright, Layman & Umney). After a well-served dinner (finishing with ice-pudding *à la Rue Newman*) and the loyal toast, Mr. W. G. Northey, in an incisive speech, proposed "The Pharmaceutical Society." Mr. J. F. Harrington briefly replied, dealing with one or two of the many parts of the Society's work, and appealing for the loyal support of the Association and for help for the Benevolent Fund. The Council desire that so far as it is possible the Association should have the use of the rooms at Bloomsbury Square, but they are somewhat inconvenient. The toast of the evening was given by Dr. J. Cantlie in a witty and jovial series of Scotch anecdotes. He proposed the health of the Chairman in a separate speech. Replying for the Association, Mr. Clark, who was barely audible, partly on account of the acoustic properties of the room and the lack of complete silence, said that the thirtieth annual dinner was evidence of its vigour and life, and with assistance it would maintain that life, but the assistance must not be spasmodic. Mr. Harrington had given him a somewhat sad heart. They wished to be more closely associated with the Society, and it is a thousand pities it cannot accommodate the Association. The assistant is not sufficiently interested in the Society. He sees it for the first time in the examination-room, and that is not the best place. Mr. Clark quoted the precedent of the North British Branch. He concluded with a reference to the success of the Association in cultivating closer relations with the medical profession, inasmuch as four of the lecturers of the session have been medical men. Old favourites of the Association—Messrs. Sidney Jamieson, Harry Hall, Percy Underwood, and Harry Vincent—provided the musical items, which were much appreciated. Mr. C. W. Wreford told Cornish stories.

## Kallitype for Chemists.

THERE are no doubt many chemists to whom the process of kallitype printing is more or less familiar, but there are still not a few who, except by name, know nothing of the process. This is not to be wondered at, for the chemist, especially he who conducts a photographic department in addition to his pharmaceutical business, is a busy man, with little time to interest himself in a more or less obscure method of printing in silver through the medium of iron compounds. The revival of the process is in some measure due to the present famine prices of platinum and the endeavours of photographers to find a means of obtaining platinum-effects. The image yielded by a properly worked kallitype paper is remarkably like a platinum print. Thus it comes about that there are many amateurs working the process for the first time, and, as in all other matters connected with camera craft, they are appealing to the chemist for information and advice.

Kallitype is a process giving a wide range of surfaces, and capable of yielding very fine warm-toned, as well as black and white, pictures. The prints, if not as permanent as platinum, are at least as lasting as any other silver-image pictures, providing the iron salts are thoroughly washed out. The outline of the process is as follows: A paper is first sized with arrowroot, and is then sensitised with iron and silver. When dry, the paper is printed by exposure to daylight, and the faintly visible image developed with some salt, such as borax, Rochelle salt, or sodium tungstate.

### THE PAPER.

Almost any paper will produce a kallitype print, but the best papers are either smooth or rough drawing-papers, such as Whatman's or Zander's, the uncalendered papers of Rives, Steinbach, or Schopf No. 27 Papier; Scotch linen ledger-paper is also good, and so are the Japanese tissues. Good note-papers, such as vellum or cream-laid, are also useful for small sizes, but chemically pure paper prepared for photographic purposes is the best to use.

### SIZING.

Before being sensitised the paper must be sized with arrowroot in order to prevent the sensitising solution sinking right through. The sizing is carried out as follows: Mix 180 grains of good arrowroot into a smooth cream with a little water, and add one pint of boiling water, then boil for about five minutes with constant stirring. When cold, remove the film from the surface and strain through muslin. There are various methods of applying the size, but the best way is to use soft sponges. Three sponges are necessary, and the paper to be coated is fastened by means of drawing-pins to a flat board. A number of small boards is better than one large one, and the correct thing is to have the boards rather smaller each way than the papers, to prevent the size running underneath. A little of the size is taken up on one of the sponges and applied to the paper in strokes, running one way, each stroke going the whole length of the paper; the process is repeated, the strokes going the other way and across the paper. The second sponge is applied in like manner, but should be just damped with water; this evens up the coating and works it into the paper. The third sponge is used in the same way to remove any excess of solution. The paper is then either left on the boards to dry or fastened to a line by means of clips. The drying should take place in a fairly warm room. Some workers recommend the addition of 10 per cent. of methylated spirit to the size, so as to hasten the drying process.

### SENSITISING.

This should be done in weak daylight (the sensitised paper being rather more sensitive than ordinary P.O.P.) or by yellow light.

There are many varieties of the recipe for the sensitiser; the following two are good:

| No. 1.                        |     |     |                |
|-------------------------------|-----|-----|----------------|
| Ferric oxalate                | ... | ... | 75 grains      |
| Water                         | ... | ... | 1 oz.          |
| Oxalic acid                   | ... | ... | 5 to 10 grains |
| Dissolve by warming, and add— |     |     |                |
| Silver nitrate                | ... | ... | 30 grains      |
| Dissolve.                     |     |     |                |

The exact quantity of oxalic acid is not important; it is added in order to dissolve the ferric oxalate. The quantity should not, however, exceed 10 grains to the ounce.

## No. 2.

This is a useful formula when ferric oxalate is not obtainable:

|                    |     |     |            |
|--------------------|-----|-----|------------|
| Iron ammonium alum | ... | ... | 260 grams  |
| Water              | ... | ... | 1,000 c.c. |

Dissolve, and precipitate the iron with—

|                  |     |     |            |
|------------------|-----|-----|------------|
| Ammonia (0.880°) | ... | ... | 100 c.c.   |
| Water to         | ... | ... | 1,000 c.c. |

Filter, wash, precipitate with water, drain, and dissolve by gently warming with oxalic acid (105 grams). Do not allow temperature to get beyond 100° F. Make the solution up to 500 c.c. This makes a 20-per-cent. solution of ferric oxalate acidified with from 1 to 2 per cent. of oxalic acid.

To sensitise the ferric-oxalate solution take 400 minims of the bright solution, add 30 grains of silver nitrate, and when dissolved make up to an ounce with distilled water.

There are other recipes in which copper chloride is used with a trace of potassium bichromate. The sensitising-solution is applied in the same way as the sizing-solutions when small sheets are being coated; when, however, it is desired to coat large sheets, a flat camel's-hair brush bound with rubber will be better. Care must be taken both in sizing and sensitising rough papers that the solution gets well down into the depressions. It is a good plan to first damp the paper with a wet sponge and apply the solution before the paper is quite dry. Sometimes it will be found necessary to dab the surface with a piece of cotton wool wet with the solution. The sensitisers will keep for some months in a dark place, providing there is no organic matter to react with the silver. The sensitised paper is dried (in the same manner as before), and is then ready for

## PRINTING.

This should be carried out much the same as with P.O.P.—in shadow for thin negatives and in direct sunshine for dense—and the printing should go on until the detail is faintly visible in the densest parts. When accurately printed the paper will have the appearance of a slightly over-printed platinotype. The image is made up of ferrous salts, which under the action of the developer have the power of reducing the silver nitrate to metallic silver.

## DEVELOPMENT.

There are various chemicals which have the power of developing the kallitype image, and upon the substances chosen depends the colour of the resulting print. The following are excellent formulæ:

*For Pure Black Tones.*

|                                         |     |     |            |
|-----------------------------------------|-----|-----|------------|
| Borax                                   | ... | ... | 1 oz.      |
| Rochelle salt                           | ... | ... | 3 oz.      |
| Potassium bichromate (1-per-cent. sol.) | ... | ... | 7 to 9 dr. |
| Water                                   | ... | ... | 10 oz.     |

*For Sepia Tones.*

|                                         |     |     |            |
|-----------------------------------------|-----|-----|------------|
| Rochelle salt                           | ... | ... | 1/2 oz.    |
| Potassium bichromate (1-per-cent. sol.) | ... | ... | 4 to 5 dr. |
| Water                                   | ... | ... | 10 oz.     |

*For Warm Maroon Tones.*

|                  |     |     |        |
|------------------|-----|-----|--------|
| Sodium tungstate | ... | ... | 1 oz.  |
| Water            | ... | ... | 10 oz. |

*For Purple Tones.*

|                                         |     |     |              |
|-----------------------------------------|-----|-----|--------------|
| Borax                                   | ... | ... | 120 grains   |
| Rochelle salt                           | ... | ... | 450 grains   |
| Potassium bichromate (1-per-cent. sol.) | ... | ... | 10 to 12 dr. |
| Water to                                | ... | ... | 10 oz.       |

Development is carried out in a dish in much the same way as with platinotype; for the larger sizes it will be found better to immerse the print face downwards and to turn it over immediately, breaking by a gentle touch of the finger any air-bubbles on the surface. The image attains full vigour in about half a minute, but the print should be left in the developer for at least a quarter of an hour, so as to render the iron salts completely soluble.

Providing the exposure has been correctly timed, over-

development will not occur. At the end of the development the prints are removed to the

## FIXING-BATH,

which is composed of—

|                     |     |     |            |
|---------------------|-----|-----|------------|
| Sodium hyposulphite | ... | ... | 1 oz.      |
| Ammonia (0.880°)    | ... | ... | 120 minims |
| Distilled water to  | ... | ... | 20 oz.     |

The prints are allowed to fix for about ten minutes, and should be kept on the move all the time. Then transfer to a clean dish and wash for half an hour in running water.

Kallitype prints made as outlined in this article will be found to give exquisite results, and will be quite permanent. Some years ago an attempt was made to produce kallitype paper commercially; the project was given up, however, the chief reason being dissatisfaction as to the permanence of the results. In the instructions issued with the paper the fixing-bath was given as a solution of ammonia, hypo at that time not being in use for the purpose, and this fact, together perhaps with insufficient action of the developer, probably accounted for the fleeting character of the prints. The function of the potassium bichromate in the above formulæ is the production of contrast, and by increasing or decreasing the quantity greater or lesser degrees of contrast are obtained, with a consequent shortening or lengthening scale of gradation. The application of the sensitiser also permits of a good deal of control over the prints. By applying only a thin coating of sensitiser the resulting print will have the appearance of a wash drawing. With a paper having a fairly thick coat the print looks more like a platinotype or a bromide print.

## WATER-DEVELOPED KALLITYPE.

This article would be incomplete without some reference to a modified iron-silver process sometimes called kallitype. The paper prepared by this process does not yield the detail, nor has it the same scale of gradation possessed by a kallitype paper. Owing, however, to the ease with which the prints are developed, the process has considerable vogue. The following formulæ will be found to give every satisfaction. The solutions required are:

## No. 1.

|                             |     |     |            |
|-----------------------------|-----|-----|------------|
| Green iron ammonium citrate | ... | ... | 110 grains |
| Distilled water             | ... | ... | 1 oz.      |

## No. 2.

|                 |     |     |           |
|-----------------|-----|-----|-----------|
| Tartaric acid   | ... | ... | 20 grains |
| Distilled water | ... | ... | 1 oz.     |

## No. 3.

|                |     |     |           |
|----------------|-----|-----|-----------|
| Silver nitrate | ... | ... | 45 grains |
| Water          | ... | ... | 1 oz.     |

## No. 4.

|         |     |     |           |
|---------|-----|-----|-----------|
| Gelatin | ... | ... | 30 grains |
| Water   | ... | ... | 1 oz.     |

The gelatin solution takes the place of the arrowroot sizing-solution of the former process, so that there is no need for the preliminary sizing operation.

A measured quantity of the gelatin solution is put into a vessel standing in hot water, and equal volumes of the solutions 1 and 2 are added. The same volume of No. 3 is measured out, and added a drop or two at a time, with constant stirring. This forms the sensitiser, which is applied warm with a sponge or a tuft of cotton wool, and evened up by lightly drawing a flat camel's-hair brush over the paper first one way and then another. As soon as the solution has soaked in and the surface looks dull, the paper is hung up to dry. It is printed similarly to, but rather further than, ordinary kallitype, and the detail in the high lights should be quite visible. The prints are developed by immersing in plain water for about three minutes, when they will have attained full vigour, and will be of a reddish-brown colour. They are fixed by immersion in a bath of hypo (10 grains to 1 oz.), where the tone is changed to an artistic brown. The prints are then washed for about half an hour in running water to remove the hypo.

THE business of the late Mr. A. C. Farmer, chemist and druggist, Spilsby, is to be carried on by the family with the help of a qualified assistant. The mineral-water business will, as formerly, be under the management of Mr. C. F. Farmer.

## Linaloe Oil.

By W. H. SIMMONS, B.Sc., F.C.S.

THE need of a really satisfactory method for the determination of linalol in essential oils has long been recognised, that usually employed—viz., acetylation and subsequent saponification—being well known to give results deficient to the extent of 15 per cent. and upwards, even when carried out under the most favourable conditions. When, therefore, Parry and Bennett, in an article on this subject (*C. & D.*, April 7, 1906, p. 544) definitely stated that "the great majority of samples to-day of the finest oil imported, and believed to be above suspicion, do not contain more than 70 per cent. of linalol," and suggested that oils containing 90 per cent. linalol were abnormal, it seemed only natural to conclude that the authors had devised a new and more accurate method for the determination of linalol, and I was considerably disappointed to find from their letter to the *C. & D.* of April 21 last that such was not the case.

The fact that samples of pure linalol, as supplied by two of the leading firms manufacturing artificial perfumes, when examined by the ordinary method, acetylating for one hour, gave only 67.7 and 68.5 per cent. of linalol respectively, increased my doubt as to the accuracy of Parry and Bennett's conclusions, and I made a number of experiments in an endeavour to find a more reliable method for the estimation of linalol, but without success, as the following results show:

| Treatment                                                                        | Per Cent.<br>Alcohols found,<br>as Linalol |
|----------------------------------------------------------------------------------|--------------------------------------------|
| Pure linalol heated on water-bath with acetic anhydride only for 2½ hours ... .. | 22.7                                       |
| Pure linalol heated on water-bath with formic acid for 1 hour ... ..             | 22.0                                       |
| Pure linalol boiled with salicylic acid ... ..                                   | 29.0                                       |
| Linaloe oil treated with acetic acid and anhydrous CuSO <sub>4</sub> * ... ..    | 6.2                                        |

\* Cf. Bogojawlensky and Narbutt, "Ber. d. Chem. Ges." 38.3344, 1905.

M. V. Brulez ("Les Corps Gras," 1907, p. 178, and "Chem. Zeit." 1907, 31, Rep. 58) appears, however, to have been more successful, and has recently published a method which gives very satisfactory results. It consists, briefly, in diluting 5 grams of the oil with 25 grams of turpentine, and boiling with 40 grams of acetic anhydride and 3 to 4 grams of fused sodium acetate for three hours, then washing, drying, and saponifying with potash in the ordinary way, a blank experiment with the turpentine being carried out at the same time. By allowing for the "alcohol value" of the turpentine, that of the oil under examination can be readily calculated. In this way Brulez has obtained the following results compared with those given by the ordinary process:

| —                   | New Method | Old Method |
|---------------------|------------|------------|
|                     | Per Cent.  | Per Cent.  |
| Linalol ... ..      | 98-100     | 50         |
| Linaloe oils ... .. | 80-90      | 40-50      |

And I have myself confirmed the accuracy of the process, my results being:

| —                  | New Method | Old Method |
|--------------------|------------|------------|
|                    | Per Cent.  | Per Cent.  |
| Linalol ... ..     | 100        | 68.5       |
| Linaloe oil ... .. | 88         | 62         |

It seems clear, therefore, that in their article Parry and Bennett did not sufficiently take into account the somewhat

large loss of linalol brought about by acetylation, and that the statement found in most text-books as to the presence of some 90 per cent. linalol in linaloe oil is substantially correct.

## Newcastle Formulæ.

THE subjoined are from the Pharmacopœia of the Royal Victoria Infirmary, Newcastle-on-Tyne, compiled, under the direction of a Committee of the Medical and Surgical Staff, by Mr. Sydney Dunstan, F.C.S., Head Dispenser to the Institution:

### *Linctus Camphoræ Compositus.* (Opium and Squill Linctus.)

|                                  |           |
|----------------------------------|-----------|
| Compound tincture of camphor ... | 20 minims |
| Syrup of squill ... ..           | 20 minims |
| Syrup of tolu ... ..             | 20 minims |

Mix.

Dose, 1 fl. dr.

### *Linctus Mentholis.* (Menthol Linctus.)

|                        |            |
|------------------------|------------|
| Aq. laurocerasi ... .. | 10 minims  |
| Glycerin ... ..        | 7½ minims  |
| Syr. rheados ... ..    | 15 minims  |
| Sp. vin. rect. ... ..  | 12½ minims |
| Menthol ... ..         | 1½ grain   |
| Aquæ ad ... ..         | 1 dr.      |

Dose, 1 fl. dr.

### *Linimentum Terebinthinæ Compositum.* (Compound Turpentine Liniment.)

|                                |           |
|--------------------------------|-----------|
| Soft soap ... ..               | 16 grains |
| Strong solution of ammonia ... | 60 minims |
| Acetic acid ... ..             | 36 minims |
| Turpentine ... ..              | 48 minims |
| Water to ... ..                | 1 fl. oz. |

M.S.A.

### *Lotio Calaminæ.* (Calamine Lotion.)

|                      |           |
|----------------------|-----------|
| Calamine ... ..      | 20 grains |
| Zinc oxide ... ..    | 20 grains |
| Glycerin ... ..      | 15 minims |
| Lime-water to ... .. | 1 fl. oz. |

Mix.

### *Mistura Ammonia et Ipecacuanhæ Infantilis.* (Mixture of Ammonia and Ipecacuanha for Children.)

|                           |           |
|---------------------------|-----------|
| Ammonium carbonate ... .. | 1 grain   |
| Ipecacuanha-wine ... ..   | 2½ minims |
| Glycerin ... ..           | 10 minims |
| Water to ... ..           | 1 fl. dr. |

Mix.

Dose, 1 fl. dr.

### *Mistura Cascaræ Sagradæ.* (Mixture of Cascara Sagrada.)

|                                 |           |
|---------------------------------|-----------|
| Liquid extract of cascara ...   | 30 minims |
| Glycerin ... ..                 | 10 minims |
| Aromatic spirit of ammonia ...  | 5 minims  |
| Syrup of ginger ... ..          | 30 minims |
| Liquid extract of liquorice ... | 30 minims |
| Chloroform-water to ... ..      | 1 fl. oz. |

Mix.

### *Mistura Mucilaginis Composita.* (Mucilage Cough-mixture.)

|                                  |           |
|----------------------------------|-----------|
| Potassium nitrate ... ..         | 5 grains  |
| Liquid extract of liquorice ...  | 5 minims  |
| Wine of ipecacuanha ... ..       | 10 minims |
| Compound tincture of camphor ... | 30 minims |
| Mucilage of tragacanth ... ..    | 1 dr.     |
| Water to ... ..                  | 1 fl. oz. |

Mix.

### *Pulvis Alkalini Compositus.*

|                            |         |
|----------------------------|---------|
| Powdered sugar ... ..      | 2½ oz.  |
| Chlorate of potash ... ..  | 1½ oz.  |
| Borax ... ..               | 1½ oz.  |
| Bicarbonate of soda ... .. | 1½ oz.  |
| Oil of wintergreen ... ..  | 1 minim |
| Thymol ... ..              | 1 grain |

Mix. One teaspoonful in a pint of warm water for syringing the nostrils.

### *Pulvis Alterativus.*

|                            |         |
|----------------------------|---------|
| Mercury with chalk ... ..  | 1 part  |
| Ginger in powder ... ..    | 1 part  |
| Rhubarb in powder ... ..   | 2 parts |
| Bicarbonate of soda ... .. | 2 parts |

Mix.

Dose, 2 to 5 grains.



LONDON COLLEGE TEAM: CHAMPIONS OF THE INTER-PHARMACY LEAGUE 1906-7.

Back Row, left to right.—J. P. James, H. Williams, D. A. Evans.

Middle Row.—H. Wootton, B.Sc., W. P. Styles, H. F. Bunting, B. A. Bull, C. B. Woolloas, W. Roberts, A. Kirkland, Ph.C.

Front Row.—H. Walmsley, G. G. Watt, Ph.C., F.C.S., T. V. Evans (capt.), A. Thomson, A. T. Elliott.

## The League Champions.

AS will be seen from the following tabulated results, the London College of Pharmacy team are champions of the Inter-Pharmacy Football League, thereby becoming winners of the cup for this season :

| Club            | Fix-<br>tures | Won | Lost | Goals |      | Points |
|-----------------|---------------|-----|------|-------|------|--------|
|                 |               |     |      | For   | Ag't |        |
| London ...      | 9             | 8   | 1    | 70    | 11   | 16     |
| Square ...      | 9             | 7   | 2    | 28    | 10   | 14     |
| Metros ...      | 8             | 3   | 5    | 8     | 31   | 6      |
| Muter's ...     | 8             | 1   | 7    | 6     | 28   | 2      |
| Westminster ... | 8             | 1   | 7    | 6     | 38   | 2      |

Owing to two of their opponents scratching, this team actually played only seven matches. Their average for League fixtures therefore becomes 10 goals against 1.6, constituting an Inter-Pharmacy record. Including friendlies, the team has played sixteen matches during the past season, scoring an aggregate of 104 goals against 34. With regard to the players individually, the dribbling and goal-getting proclivities of A. Evans, the centre-forward, will be remembered both by his own and opposing teams. Walmsley, who with Elliott or Williams made a very efficient right wing, was specially noted for his long powerful centres from the touch-line; while Thomson and D. Evans made a speedy and reliable pair on the left wing. The half-back line, composed of V. Evans (Captain), Bunting, and Woolloas,

proved a strong line of defence, each man being an indefatigable worker. The backs, James and Watt, were able co-operators with the halves in forming a sturdy defence; while Bull is probably one of the best goalkeepers the League has ever seen.

## Business Changes.

MR. B. A. LEWIS has opened a chemist's business at 81 Tudor Road, Cardiff.

MR. EDWARDS, chemist, 20 The Brittox, Devizes, has begun the manufacture of aerated waters.

MR. ROBERT REEVES, chemist and druggist, has taken over the business of Mr. J. Evans, pharmaceutical chemist, at 1 Church Street, Oswestry.

MR. G. W. HIRCOCK, chemist and druggist, is about to remove from 25 Westbourne Terrace, North Paddington, W., to 249 Harrow Road, in the same district.

MR. E. SISSON, chemist and druggist, has taken over the Red Cross Pharmacy at 52 Station Road, Bexhill-on-Sea, formerly belonging to Mr. H. W. Roberts.

MR. F. W. GARDNER, chemist and druggist, has purchased the business of Mr. J. T. Bowen, chemist and druggist, at 238 Belsize Road, Kilburn, London, N.W.

MR. W. T. SLATTER, chemist and druggist, has acquired the business at 30 London Road, Gloucester, formerly carried on by Mr. John Furber, chemist and druggist.

THE business of Mrs. J. A. Plumbly, chemist, 7 The Walk, Beccles, has been purchased by Mr. E. H. Kellam, chemist and druggist, who has had a long experience in London and the provinces.

## Trade Report.

**NOTICE TO BUYERS.**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., March 27.

**O**WING to the approach of the Easter holidays the volume of business transacted in drugs and chemicals has been restricted, and the markets generally have a dull tone. Fortunately the "panicky" state of the Stock Exchange and the slump in the metal-markets have not found reflection in Mincing Lane. Indeed, a good speculative business at advancing prices has been in progress in certain produce. Otherwise there are few features to note; probably the most interesting is a decline in Norwegian cod-liver oil as the result of improved fishing; but there is little business passing, buyers preferring to wait final results of the Lofoten fishing. The periodical Amsterdam cinchona-auction was held on Tuesday, when a decline of 10 per cent. in the bark-unit took place. Quinine continues lifeless. Codeine and salts have been advanced 5*d.*, but morphine has not yet moved. Saffron is dearer, and Japan wax is lower. Clove oil has further advanced, and there has been an improved demand for eucalyptus oil. Lemon oil is easier inclined. Foreign citric acid is again firmer. Rhubarb is firmer, sarsaparilla is arriving more freely, and cascara sagrada for shipment has been in demand. The principal changes of the week are as follows:

| Higher                                    | Firmer                                   | Lower                                                                                                |
|-------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------|
| Clove oil<br>Codeine and Salts<br>Saffron | Benzoin<br>Citric acid<br>Eucalyptus oil | Antimony<br>Cinchona<br>Cod-liver oil<br>Coriander<br>Ergot<br>Japan wax<br>Palm oil<br>Sarsaparilla |

### Cablegrams.

**SMYRNA, March 27:**—Opium speculators and others are paying from 10*s.* 5*d.* to 11*s.* per lb., and the market is still advancing. There are now few sellers and the cold weather continues.

**NEW YORK, March 27:**—Business in drugs is brisk. Opium has advanced a further 20*c.* per lb. to \$3.80 for drug-gists'. Copaiba is higher at 80*c.* per lb. for pure South American. Cod-liver oil is also dearer at \$32.00 per barrel for new Norwegian. Buchu is firm at 20*c.* for round. Taraxacum is scarce at 30*c.*, and peppermint oil is weak at \$2.20 per lb. for bulk oil. Cassia oil has been advanced to \$1.45 for 80 to 85 per cent. c.a.

**BERGEN, March 26, 6.50 P.M.:**—The total catch of cod for the whole of Norway since the beginning of the season now amounts to 16,692,000, which compares with 27,300,000 at the corresponding date of 1906. The yield of steam-refined oil is 14,690 barrels, against 22,688 barrels at the same time of last year. The above figures show a net result of 7,472,000 cod and a yield of 6,156 barrels for the week, which is evidence that the fishing at Lofoten is fairly good; and the prospects for the Finnmarken fishery are also good. The market is now firm at the reduced quotation of 86*s.* per barrel, f.o.b. Bergen, for finest Lofoten non-freezing oil.

**AMSTERDAM, March 26:**—At the auction of cinchona held here to-day 8,358 packages were offered, weighing 758,252

kilos., and containing the equivalent of 43,646 kilos. of quinine, were offered (compared with 7,742 packages, weighing 715,804 kilos., representing 39,062 kilos. q.s., offered on February 21). Of the above quantity 7,536 packages sold at an average unit of 5.42*c.* per half-kilo., as compared with 6.25*c.* per half-kilo paid at the auction on February 21. The following were the approximate quantities of quinine purchased by the principal buyers: (1) The English and American factories, 14,111 kilos.; (2) the Brunswick factory, 5,362 kilos.; (3) the Mannheim factory, 5,367 kilos.; (4) the Amsterdam factory, 2,094 kilos.; (5) the Frankfort and Stuttgart factories, 4,685 kilos.; (6) various buyers, 7,172 kilos. The lowest price paid for manufacturing-bark was 7*c.* per half-kilo. and the highest 47½*c.*, while for pharmaceutical-bark from 10*c.* to 40*c.* was paid. The 25 packages coca-leaves sold at from 35*c.* to 40*c.* per half-kilo.

### Heavy Chemicals.

There has been a fairly good and steady business done in the heavy-chemical market since last writing, and exports especially have been good. Just at the moment, however, the demand is somewhat on the decline, and is likely to continue so until after the Easter holidays now. Values keep steadily on the firm side and do not show much fluctuation.

**ALKALI-PRODUCE.**—Main products, particularly bleaching-powder, caustic soda, and ammonia alkali, continue to move briskly. Salteake, too, is in strong demand and very firm, makers being well sold ahead. Yellow prussiates of potash and soda as well as chlorates are steady and in fair request.

**SULPHATE OF AMMONIA** still continues on the quiet side, with firm tone on sellers' side as regards forward business. Present nominal values: Beekton, 12*l.*; Beekton terms, 11*l.* 15*s.*; London, 11*l.* 17*s.* 6*d.* to 11*l.* 18*s.* 9*d.*; Leith, 12*l.*; and Hull, 11*l.* 16*s.* 3*d.* to 11*l.* 17*s.* 6*d.* per ton.

**BENZOLS** are on the steady side and in fair request, and a very fair business has been done on forward account; 50 per cent. are somewhat on the scarce side, and quoted 11½*d.* to 1*s.* per gal.; 90 per cent., 11*d.* per gal.

**BICHROMATES OF POTASH AND SODA** continue to move steadily at unaltered values. Bichromate of potash, English and Scotch deliveries, 3½*d.* per lb., less 2½ per cent. Glasgow, and for export 3½*d.* per lb. net, f.o.b. Glasgow. Bichromate of soda, English and Scotch deliveries, 3*d.* per lb., less 2½ per cent. Glasgow, and export 2¾*d.* per lb. net, f.o.b. Glasgow.

**SULPHOCYANIDES** show very little improvement in demand, and values continue low and without variation. Potassium, 7*d.* to 7½*d.* per lb.; ammonium, 95 per cent., 6½*d.* to 6¾*d.* per lb.; and barium, 95 per cent., 3½*d.* to 3¾*d.* per lb.

**GREEN COPPERAS** is very steady and on the scarce side, owing to makers being well sold ahead. Best Lancashire makes, 37*s.* 6*d.* to 42*s.* 6*d.* per ton, f.o.b. Liverpool, and Welsh nominally 13*s.* to 15*s.* per ton in bulk, free on rails.

### American Drug-market.

New York, March 12.

Business generally continues very good, and the market has an active and advancing tendency.

**BALSAMS.**—Small lots of copaiba are offered at 70*c.*, but the market ranges up to 85*c.* for prime goods. Para is offered at \$1.25 to \$1.50, but little is obtainable even at the advanced price.

**CASCARA SAGRADA** is neglected, and quotations of 9*c.* to 10*c.*, according to age, could be shaded.

**BUCHU-LEAVES.**—Prime green are held at 24*c.* to 26*c.*, with yellow offered down to 20*c.*

**ESSENTIAL OILS.**—Bergamot is advancing, with \$3.10 an inside figure for spot goods. Clove is firm at \$1.10. Cassia of high test is held at \$1.35. Lemon has advanced to \$1.30, with further advances likely. Peppermint is dull, with \$2.25 a nominal quotation for bulk oil.

**IRECAC.**—Rio continues firm at \$1.80, while Cartagena is lower at \$1.65.

**MANNA.**—Small flake is in good demand at 32*c.* to 35*c.* The tendency is upward.

**MENTHOL** is quiet, with quotations unchanged at \$2.55.

**OPIMUM** is quiet, but very firm, in view of the advance reports from abroad. Quotations are well maintained at \$3.50 for case lots. [Sincro advanced.—Ed.]

**QUININE** is quiet and unchanged, with makers quoting on a basis of 21*c.*

**SARSAPARILLA.**—Mexican is firmer. Spot supplies are firm at 9*c.* to 9½*c.*

**WAHOO ROOT-BARK** is in better supply, and obtainable at 50*c.*

**CAMPHOR.**—A recent arrival of 300 cases on the *Vondolia*, which caught fire at sea, is reported badly damaged, and the market is firmer, with some dealers quoting \$1.25, but supplies are still obtainable at \$1.20.

**THYMOL** is firmer, with \$1.85 to \$2.00 the general quotation. Little is obtainable at the inside figure.

ACID, CITRIC, is extremely scarce for prompt delivery; English has been sold at 2s., but 2s. 0½d. to 2s. 1d. is a more general quotation; foreign is now 1s. 11½d. to 2s.

ACID, TARTARIC, is unchanged at 1s. for English, and 11¼d. for foreign.

ALOES.—Fine liver Curaçao is quoted 75s., dark brown 65s., coarse dark 55s., and bright capey 45s. per cwt. Fifty cases of Cape have arrived from Mossel Bay, and the fifty cases Curaçao and the eleven packages Zanzibar in skins alluded to last week have now arrived at the warehouse.

BENZON.—Since the auctions prices have advanced about 10s. per cwt. owing to a good demand for qualities from 6l. and upwards. Fine alomdy Sumatra seconds is now very scarce, 8l. 10s. having been paid for a parcel, but no more is to be had at this figure. An arrival of 40 cases Siam has taken place (which are wanted), but no Sumatra and Palembang.

CANARY-SEED.—There is more inquiry for Turkish, and this particular kind is dearer, with sales of good quality reported at 37s. 6d. per quarter on the spot.

CASCARA SAGRADA.—A considerable business has been done for home consumption at 40s. per cwt., c.i.f., to arrive and per sailer afloat; but nothing more is obtainable at this figure. It is reported that very little bark was peeled in 1906, and what is now on offer mostly refers to the balance of 1904 and 1905 crop.

CASSIA FISTULA.—East Indian is quoted at from 22s. to 25s. for selected quality, and fresh natural at from 13s. to 20s. per cwt., c.i.f. terms.

CEVADILLA SEEDS.—Repeated arrivals on the Hamburg market have produced a fairly large stock there, and when sales take place they are for the most part from second-hands. There are also some new-crop parcels which exhibit a decline in quality. Business has been done in Hamburg at 60m. to 65m. per 100 kilos.

CHRYSAROBIN.—Nothing has yet been possible to assist the barren situation as to supplies of raw material, nor is there any prospect of such for some time, says a German report. Consequently chrysa robin is very scarce; only very small quantities are to be had for which 18 to 20 m. per kilo. is asked.

COCA-LEAVES.—Crushed green Java are quoted at from 6d. to 10d. per lb., c.i.f.

CODEINE.—The makers of codeine and salts announced an advance of 5d. per oz. on March 23, and now quote as follows: Codeine, pure cryst., 10s. 7d.; pure precip., 10s. 7d.; hydrochlor., 9s. 9d.; sulphate., 9s. 9d.; and phosphate, 8s. 11d., per oz. net cash; 100-oz. contracts for delivery over six months are subject to a reduction of 3d. per oz.

CORIANDEER-SEED continues to be pressed for sale, and Morocco has been sold at 9s. 6d. per cwt., being cheaper.

CUBEBS.—The following prices are quoted from Amsterdam:—Superior 60s., blue natural 52s., coarse without stalks 42s., and fair 35s. to 40s., c.i.f.

CUMIN-SEED is selling at 34s. per cwt. for common and at 40s. for fair Morocco, at 60s. for small parcels of good Malta, and at 32s. 6d. to 37s. 6d. for common to good East Indian.

DRAGON'S-BLOOD.—There are now only a few cases left in first hands owing to the recent good demand at improved prices. The arrivals amount to 7 cases good thin bright red, and 3 cases fine bright seedy lump.

ELEMI.—A few sales ex parcel offered at auction have been made at 75s. for good white.

ERGOT is easier, with sellers of Russian at 1s. 1d., spot.

FENUGREEK-SEED is quiet at 10s. per cwt. for Morocco.

GAMBIER.—Small sales of No. 1 cubes have been made at 30s. to 31s. per cwt. spot.

GAMBOGE.—The 15 cases alluded to last week have now arrived; they consist of Siam and Saigon mixed damp blocky pipe.

GINGER.—In Liverpool the sales include 90 bags Sierra Leone at 31s. ex quay, 10 tons on the quay, and 5 tons for April—May at 30s.

GLYCERIN.—With an improved demand since the advance of 2l. per ton in refiners' prices, secondhand

parcels have become scarcer, and are not so freely offered at below the official rates.

HONEY.—Pale set Honolulu is offered from second-hands at 30s. per cwt.

LINSEED is firm at 48s. 6d. to 52s. per quarter for fine qualities.

MENTHOL is firmer, 8s. 3d. having been paid for small lots of Kobayashi, but sellers now ask 8s. 4½d., spot.

MUSK-SEED.—Prime Java is offered at 3d. per lb., c.i.f.

OIL, CANANGA.—From Amsterdam, Java in bottles equaling 538 grammes is quoted 10s. per bottle.

OIL, CITRONELLA.—Ceylon is firm at from 1s. 11d. to 1s. 11½d. per lb. spot.

OIL, CLOVE.—Owing to the continued advance in cloves, the English distillers of oil again raised their quotations last Friday to 5s. 2d. per lb., or 5s. by 12 w. qts., this being an advance of 4d. on the prices of a fortnight ago.

OIL, COD-LIVER.—The considerable improvement which took place in the Lofoten fishing last week (see p. 498) has brought about a decline of about 10s. per barrel from the highest point, agents' quotations for new non-freezing ranging from 90s. to 92s. per barrel, c.i.f., for prompt shipment. Business has been on a much restricted scale this week, owing to the approach of Easter and the desire to wait the final results of the Lofoten fishing. Many of the distributors and emulsion-makers are said not to have covered their requirements as yet. There are now sellers of spot (1906) oil at 90s., and for Newfoundland 3s. per gal. is quoted.

BERGEN, March 23.—Writing on March 23, our Bergen correspondent states that "This week the fishing at West Lofoten has been better—partly rich, but on the whole uneven. It appears as if the very limited part of the Lofoten coast on which fishing is this year taking place, and the large number of fishing-boats of every kind gathered there, prevent the full development of the fishing. The official reports state that the cod's roe is still as firm as may be expected at this advanced stage of the season, and as long as the spawning of the fish continues they will generally stay "under the coast." However, if the fishing continues to be limited to the western part of Lofoten and is not extended to the East Lofoten Islands, the total catch will most probably prove to be limited. At Senjen some fishing has again taken place, and the prospects for the Finmarken fishing are considered fairly good. From many parts of the country complaints of lack of bait are frequent. The prices for the cod itself have shown a falling tendency of late, but high prices are still paid for the livers. The price of oil for prompt delivery is also well maintained at 90s. per barrel, f.o.b. Bergen (see cablegram for latest price). As to prices in future, it is, of course, impossible to say anything with certainty. For March and April delivery sellers seem to be fully engaged, but for summer and autumn delivery we should not advise purchases just now.

OIL, EUCALYPTUS, has been in good demand for export to the U.S.A. B.P. oil is obtainable at 1s. 1½d., and for globulus 1s. 5d. is quoted.

OIL, LEMON.—The Messina market is reported to have declined, but full particulars are not yet available. Good brands of the new crop is obtainable at 6s. spot.

OILS, FIXED.—*Linseed* is easier at 22s. 6d. spot and 22s. 7½d. in barrels. *Rape* is quiet at 30s. 6d. for crude and 32s. 6d. for refined. *Coconut* is easier at 43s. for Ceylon and 47s. for Cochin. *Palm* oil is 6d. cheaper at 35s. *Petroleum* is unaltered at our last week's quotations, and *Turpentine* has been steady, closing at 51s. 9d. to 52s. per cwt. for American on the spot.

OPIMUM.—Our Smyrna correspondent writes as follows:

SMYRNA, March 15.—Only one basket of Karahissar opium changed hands for France this week. There are, however, one or two buyers for a large quantity, but sellers are asking 2d. or 3d. per lb. more than last week's prices. Buyers will probably have to give in, as at present there are no weak sellers, stocks being much exhausted. The arrivals in Smyrna to date amount to 3,181 cases, against 1,462 cases at the same period of last year.

POTASH PERMANGANATE.—The present values, which are considered too low in view of the cost of raw material, are from 37s. to 36s. per cwt. according to quantity.

QUILLAIA.—Sales have been made in Liverpool at 20l. per ton, but more is now asked.

QUININE remains demoralised, there being no business to

report. To-day there are reported to be sellers at 8*d.* from second-hands for good German sulphate. A further reduction in the makers' prices as the result of the 12 per cent. decline in bark would not be surprising.

**ROSE-PETALS.**—Good Dutch red 1906 crop are quoted 2*s.* 2*d.* per lb., c.i.f.

**SAFFRON.**—There appears to have been some truth in the earlier reports published as to the saffron-bulbs having rotted in the ground as the result of protracted cold and wet weather. Advantage has been taken of this fact to again raise prices in Spain by a further 1*s.*, finest Valencia B.P. quality now offering on a basis of 33*s.* per lb. net, and with an upward tendency. The price of saffron is considered fairly cheap when compared with previous years, and should the present low rate of exchange (now 27.85 pesetas to 1*l.*) advance, it is safe to conclude that saffron will follow suit.

**SANDALWOOD.**—Macassar is very firm, superior sound in logs is quoted 50*s.*, prime in logs 40*s.*, and roots 35*s.* per cwt., c.i.f. terms.

**SARSAPARILLA.**—Owing to arrivals, the market is easier all round. Since the auctions the total arrivals of Lima amount to 27 bales, together with 8 bales of grey and 7 of native already reported; 20 of Honduras are also close at hand.

**SHELLAC.**—Business has slackened off in view of the holidays, fair TN Orange offering on a basis of 214*s.* per cwt. Good and fine Orange marks are quoted at from 240*s.* to 255*s.* spot, and 232*s.* 6*d.* to 245*s.* c.i.f. AC Garnet is 200*s.* spot and 202*s.* c.i.f. GAL in circle 190*s.* spot and 187*s.* c.i.f. Futures have been inactive.

**TARAXACUM.**—English is now unobtainable, and for foreign-a limited quantity is on offer at 40*s.* for whole, while cut is quoted 42*s.* 6*d.* to 48*s.* per cwt.

**TURMERIC.**—Madras finger is rather dearer, with fair sales at from 28*s.* to 29*s.* for good bright finger. Bengal is steady at 20*s.* to 21*s.*, and for split Cochin bulbs 11*s.* 6*d.* has been paid.

**WAX, JAPAN,** is rather lower at from 63*s.* 6*d.* to 64*s.* for good squares on the spot.

### Italian Olive Oil.

Supplementing our remarks in regard to olive oil last week (p. 464), the British Consul, in his annual report on the trade of South Italy for 1906, states that prices are ruling extremely high both at Gioia Tauro and Gallipoli. This is partly due to speculation and to the deplorable condition of the crop, which this year will yield little or nothing. The Spanish oil, too, which usually competes very strongly against Italian, is also ruling at very high prices. It is therefore tolerably certain that the present level of prices will be maintained. The production at Gioia will amount to a very little table oil, while Gallipoli reckons only on one-sixth of a normal crop.

### Monazite in the Malay Peninsula.

An interesting occurrence of thoria, which is still largely used in the manufacture of incandescent mantles, is recorded in the current number of the "Bulletin of the Imperial Institute." It is found in association with tinstone in alluvial sands in the Malay Peninsula. These sands have up to the present been worked for tin only, and the valuable monazite has been either thrown aside or lost in the smelting-process. Recently, however, sands appear to have been met with which are so rich in monazite that the separation of this heavy mineral from the associated tinstone could not be effected by washing, and this led to samples being sent to the Institute so that a method of purifying the tinstone could be devised. Careful analyses of the impurity associated with the tinstone by the Institute chemists showed that it was largely monazite, containing from 5.3 to 8.2 per cent. of thoria. The problem of separating the monazite from the tinstone has also been solved; for the former is slightly magnetic, owing to the ceria it contains, and consequently it is suggested that magnetic concentrators, such as those devised by Wetherill and others, should be used for the separation. The report indicates that this association of monazite with tinstone is common in the Federated Malay States, samples of sands containing both minerals having been obtained from four different districts. As the tin-mining industry is well organised in Malaya and most of the companies are well provided with capital, it is probable that no time will be lost in exploiting this source of monazite. The present value of the mineral is about 5*l.* per ton for each unit per cent. of thoria present, so that the Federated Malay States monazite would be worth from 25*l.* to 40*l.* per ton.

### Algerian Essential Oils.

According to an American Consular report there are about 4,500 producers of essential oils in Algeria, most of whom have no wish to enter into direct relations with foreign buyers. Most of the factories are in the hands of Europeans, and are provided with all recent improvements. Almost all the high-class essential oils produced goes to France, where contracts are made for the entire production, and the smaller producers sell to local houses, who pay cash on taking delivery. The exports to France in 1905 were valued at 212,000*l.*, Germany 6,000*l.*, United States 3,200*l.*, Great Britain 2,620*l.*, Belgium 1,800*l.*, and Holland 1,400*l.* Foreign buyers are usually required to open a credit in Algeria and pay the amount of the invoices on production of the B. of L. and insurance policy. Geranium and other flower oils are almost entirely produced in the district immediately surrounding Algiers. Boufarik, in the Mitidja plain and about twenty-two miles from Algiers, is the central market. One factory is conducted in the former monastery of La Trappe at Staouéli, where distillation is carried on on a large scale. As regards olive oil, the Consul believes that no oil intended for exportation is adulterated in any way, but for local consumption it is largely mixed with cottonseed or other oils.

### Arrivals.

Among the arrivals from March 14 to 20 inclusive are the following: Acetic acid (@ Rotterdam), 100 pkgs.; albumen (@ Treport), 14; aloes (@ Mossel Bay), 7; aniseed (@ Windau), 31; annatto (@ Jamaica), 41; antimony (@ Singapore), 50 cs.; arsenic (@ Oporto) 101, (@ Hamburg) 50; asafetida (@ Aden), 13; buchu (@ Cape Town), 27; calumba (@ Hamburg), 113; camphor (@ Shanghai) 32 cs., (@ Hong-Kong) 100 cs.; cardamoms (@ Colombo), 134; chamomiles (@ Ghent), 29; chaulmoogra oil (@ Calcutta), 10 cs.; chiretta (@ Calcutta), 26; cinchona (@ Colombo), 193; cinnamon oil, 8; citrate of lime, 42 cks.; colocynth (@ Bussorah), 120 pkgs.; coriander (@ Casablanca), 410; cream of tartar (@ Rotterdam), 18; dragon's-blood (@ Singapore), 10; drugs (@ Baltimore), 60 bxs.; essential oils (@ Messina) 55, (@ Ostend) 10, (@ Palermo) 43, (@ Hong-Kong) 115 cs.; galls (@ Persia), 499; ginger (@ Jamaica), 277; gum. unenumerated (@ Alexandria) 47, (@ Bussorah) 1,215 cs. 240 bgs.; honey (@ Jamaica), 75; iodine (@ Chili), 132 kgs. 50 bls.; jalap (@ Hamburg), 29; lemon-juice conc. (@ Messina), 22 pps.; lime oil (@ Dominica), 6; menthol (@ Hamburg) 45 cs., (@ Marseilles) 20 cs., (@ Kobe) 15 *in tr.*; nux vomica (@ Madras) 150, (@ Coconada) 112; opium (@ Constantinople) 41 cs., (@ Marseilles) 14 cs.; orange oil (@ Jamaica), 10; oxalic acid (@ Rotterdam), 13; peppermint oil (@ Hamburg) 15, (@ Marseilles) 75 cs. and 50 *in tr.*, (@ Kobe) 15 *in tr.*; pot. chlor. (@ Gothonburg), 24; quicksilver (@ Seville), 5,000; quinine (@ Amsterdam), 75 cs.; roots, barks, etc. (@ New York), 59; sarsaparilla (@ Hamburg), 8; senna (@ Alexandria) 25 bls., (@ Aden) 41, (@ Suez) 25; tartar (@ Bordeaux), 61; tamarinds (@ Barbados), 50 bls.; thorium (@ Flushing), 22; sandarac (@ Mogador), 33; sarsaparilla (@ New York) 45, (@ Panama) 27; soy, 200; tragacanth (@ Constantinople), 69 cs.; vanilla (@ Marseilles), 6 cs.; wax, bees' (@ Marseilles) 161 pkgs., (@ Chili) 12, (@ Hamburg) 10, (@ Boston) 15 cs.; wax, carnauba (@ Bahia) 85 cks., (@ Hamburg) 10.

### Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

75/27. Actual makers of electro-magnetic machines?

74/46. What is "Sythyl," or where can it be obtained?

70/62. What is pulv. metallic Elgar? References as to uses or composition desired.

75/63. Where can Kendall's Spavin-cure and Perry Davis's Vermifuge be obtained in this country?

THE Chemische Fabrik auf Aktien (late E. Schering), of Berlin, made a gross profit of 1,712,249*m.* in 1906, against 1,061,448*m.* in 1905. The dividend to be paid is 17 per cent. (as compared with 15 per cent. in 1905) on original capital and 43 per cent. on preference shares. The increased profit gained in 1906 (says the report) comes almost entirely from the production of artificial camphor. In view of the removal of the factory from Berlin negotiations for sale are in progress.

## Commercial and Produce Notes.

## Rafia Wax.

H.M. Consul at Antananarivo (Madagascar) has forwarded an extract from the "Bulletin Economique" of Madagascar containing some particulars of a wax which is obtained from the leaves of the raffia-tree after extraction of the fibre. Sample lots have been prepared by the natives and sold at 1s. per lb., but at present no regular supplies have been brought forward.

## Japanese Vegetable Wax.

The present average production of vegetable wax in Japan is valued at from 2,000,000 to 3,000,000 yen per year. In the early 'seventies many feudal lords began to encourage the plantation of *Rhus succedanea*, and the manufacture became popular everywhere in Japan. Owing to the enhancement of wages and the importation of foreign wax, since the Restoration the industry has been handicapped, and is now confined to Kyushu and a portion of Chugoku. The authorities concerned now wish to encourage planting on a larger scale, and a subsidy to the principal manufacturers is talked of. Vegetable wax is now quoted at 25.6 yen per 100 catties, against about 15 yen five or six years ago.

## Abyssinian Products.

The export of civet from Abyssinia is declining, owing to the competition of a cheap German synthetic perfume. The price in Aden, where eight years ago it brought \$10 per oz., has fallen to \$2 to \$2½ per oz. This is for small quantities, which are bought in Aden and sent to Jeddah for the pilgrims. France is still the principal purchaser of civet. The total exports last year amounted to 4,800 oz., valued at \$9,600. [The value of the dollar depends on the silver exchange in Europe, and varies from \$8½ to \$10 per lb.] A small quantity only of gum arabic is exported, as the quality is inferior and cannot compete with that from the Soudan. Before the opening-up of the Soudan large quantities were exported, but the export declined last year to 600 faraslas (1=37½ lb.), of a value of only \$3,000. The gum is produced in the Ania province.

## Cashew-nuts.

The sale of cashew-nuts in England has been the subject of several notes in the "Ceylon Observer" recently, from which we learn that they grow abundantly in India and East Africa. On the East African coasts the fruit ripens from December to January, and during that period the Kaffirs distil a spirit from it. Owing to the great abundance of the tree in some parts of the Portuguese territory the commandants have instructions to destroy all the seedlings that spring up. Large quantities of the nuts are annually exported from Delagoa Bay, Inhambane, Beira, Chinde, Quilimane, and Zanzibar to European ports. The bulk of the shipments received in London is obtained from Bombay, however, and is usually shelled before shipment. Consignments have lately been received in the shell, but great difficulty is found in removing it. A London firm of retailers are obtaining their supplies from a native firm in Madras in blanched form—i.e., with the inner husks removed. These nuts are packed in large tins, and a higher price is charged. The West Indies produce cashew-nuts, but they are inferior to those obtained from India.

## Buchu-leaves.

An interesting account appears in "The South African Trade Journal and Shipping Gazette" of January 15 regarding the cultivation and export of buchu. The value exported at present, according to the article, is about 1,000% per annum. [The Customs figures state that the exports in 1906 were valued at 7,769%.—Ed.] It goes on to describe the various districts in which buchu is found, from which we learn that "the official kind grows principally in the districts of Clanwilliam, Calvinia, and Piquetberg," a somewhat limited area, most Colonial chemists will think. The writer states "we have sought the opinion of a well-informed pharmacist who takes a particularly intelligent interest in affairs connected with his business, so far as they affect the welfare of his country." A patriotic sentiment which will be cordially endorsed. The pharmacist in question gives an interesting *résumé* of the uses of the drug, and states "that, in his opinion, it is falling into disuse, so far as the British medical profession is concerned, and as time rolls on and prescribing becomes practically a lost art—which is nearly the case even now—its inclusion in the physician's prescription will doubtless be a rare occurrence indeed." He is severe on the "absurd" way in which it is prescribed, and oftentimes dispensed. A short account of its uses, active principles, and South African local remedies prepared from it concludes a very readable article. Further information in regard to buchu was given in our issue of March 2 (p. 337).

## Foreign Trade Statistics.

THE following table shows the imports and exports of drugs, chemicals, etc., to and from the United Kingdom for the two months ending February 1905, 1906, and 1907, as given in the Board of Trade Returns:

## Imports.

| Drugs, Chemicals, etc.                 | 1905    | 1906    | 1907      |
|----------------------------------------|---------|---------|-----------|
| Bleaching-materials ... cwt.           | 35,099  | 32,031  | 23,841    |
| Boron compounds ... "                  | 45,668  | 73,101  | 48,590    |
| Brimstone ... "                        | 58,711  | 71,944  | 55,175    |
| Coal products, not dyes... "           | 8,155   | 13,277  | 15,100    |
| Cream of tartar ... "                  | 9,582   | 9,923   | 11,362    |
| Glycerin ... "                         | 9,630   | 7,547   | 7,816     |
| Muriate of ammonia ... "               | 797     | 1,679   | 795       |
| Saltpetre ... "                        | 26,777  | 34,182  | 39,934    |
| Soda compounds... "                    | 71,972  | 52,956  | 54,101    |
| Sulphuric acid ... "                   | 4,908   | 16,844  | 9,057     |
| Tartaric acid ... "                    | 5,215   | 6,181   | 5,644     |
| Unenumerated chemicals £               | 274,761 | 308,934 | 396,491   |
| Cinchona ... cwt.                      | 3,834   | 5,283   | 3,855     |
| Quinine and salts ... oz.              | 130,872 | 226,184 | 1,058,312 |
| Unenumerated drugs and medicines ... £ | 183,012 | 165,149 | 169,239   |
| Alizarine and alizarine dyes ... cwt.  | 7,178   | 7,233   | 7,369     |
| Aniline ... "                          | 27,803  | 26,858  | 29,494    |
| Synthetic indigo... "                  | 4,999   | 8,717   | 8,774     |
| Other coal-tar dyes ... "              | 341     | 169     | 71        |
| Indigo ... "                           | 1,653   | 2,638   | 2,368     |
| Quicksilver ... lb.                    | 381,920 | 7,882   | 797,122   |
| Gum arabic ... cwt.                    | 17,579  | 6,434   | 17,045    |
| Shellac, etc. ... "                    | 223,940 | 261,413 | 330,417   |
| Turpentine ... "                       | 75,259  | 62,853  | 85,243    |
| Soaps, household ... "                 | 46,052  | 48,238  | 45,116    |
| Toilet-soap ... "                      | 3,832   | 2,899   | 3,002     |

## Exports.

|                                        |           |           |           |
|----------------------------------------|-----------|-----------|-----------|
| Bleaching-materials ... cwt.           | 125,021   | 175,167   | 191,247   |
| Coal products, not dyes—               |           |           |           |
| Aniline and coal-tar oils "            | 83,541    | 171,114   | 325,502   |
| Carbolic acid ... "                    | 13,978    | 19,329    | 22,814    |
| Naphthalene and anthracene ... "       | 13,078    | 13,373    | 12,300    |
| Other sorts ... "                      | 1,851,930 | 2,245,122 | 2,240,889 |
| Copper sulphate ... tons               | 14,047    | 7,213     | 8,902     |
| Cream of tartar ... cwt.               | 284       | 195       | 223       |
| Dye-stuffs—                            |           |           |           |
| Products of coal-tar ... "             | 7,998     | 8,814     | 6,939     |
| Other sorts ... "                      | 21,885    | 38,721    | 32,769    |
| Glycerin ... "                         | 19,101    | 24,597    | 30,672    |
| Chemical manures ... tons              | 69,530    | 83,352    | 93,524    |
| Quinine and salts ... oz.              | 83,366    | 154,376   | 188,903   |
| Unenumerated drugs and medicines ... £ | 224,878   | 248,333   | 259,900   |
| Ammon. mur. ... cwt.                   | 14,326    | 18,687    | 27,386    |
| Painters' colours ... "                | 245,486   | 310,545   | 329,222   |
| Soda, ash ... "                        | 287,173   | 214,770   | 330,886   |
| Bicarb. ... "                          | 82,442    | 45,353    | 66,496    |
| Caustic ... "                          | 244,137   | 230,676   | 253,260   |
| Crystals ... "                         | 30,251    | 26,067    | 18,885    |
| Sulphate... ... "                      | 57,948    | 119,818   | 133,834   |
| Other sorts ... "                      | 51,411    | 54,349    | 70,667    |
| Sulphuric acid ... "                   | 17,438    | 15,939    | 11,310    |
| Tartaric acid ... "                    | 365       | 142       | 706       |
| Unenumerated chemicals £               | 390,258   | 430,750   | 439,425   |
| Soap, household ... cwt.               | 205,856   | 188,653   | 180,253   |
| Toilet-soap ... "                      | 6,669     | 6,393     | 6,732     |

## Re-Exports.

|                               |         |         |         |
|-------------------------------|---------|---------|---------|
| Gum arabic ... cwt.           | 8,059   | 2,829   | 4,160   |
| Shellac and other lacs ... "  | 19,212  | 12,142  | 10,975  |
| Quicksilver ... lb.           | 393,680 | 569,006 | 567,430 |
| Boron compounds ... cwt.      | —       | 1,260   | 30      |
| Coal products, not dyes ... " | 1,030   | 717     | 1,087   |
| Cream of tartar ... "         | 1,945   | 1,394   | 1,400   |
| Glycerin ... "                | 4,377   | 924     | 4,927   |
| Muriate of ammonia ... "      | 330     | 320     | 120     |
| Saltpetre ... "               | 2,727   | 2,014   | 1,943   |
| Sulphuric acid ... "          | 20      | —       | —       |
| Tartaric acid ... "           | 333     | 799     | 362     |
| Unenumerated chemicals £      | 19,120  | 25,582  | 31,720  |
| Cinchona ... cwt.             | 959     | 1,333   | 1,583   |
| Quinine and salts ... oz.     | 7,758   | 7,558   | 277,858 |
| Soap, household ... cwt.      | 1,255   | 1,402   | 903     |
| Toilet-soap ... "             | 631     | 318     | 247     |

## Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

**Columbin.**—According to Frev, columbin is a lactone of the monobasic oxy-acid,  $C_{27}H_{42}O_7(OH)(COOH)$ . It contains the alcoholic or phenolic hydroxy groups, and has the formula  $C_{27}H_{42}O_8(CO)O(OH)$ .

**Elaterin.**—According to Flenkelmayr, pure elaterin melts at  $225^\circ$ , and has the composition  $C_{24}H_{38}O_6$ , and not  $C_{26}H_{42}O_6$ , as stated by Zwenger. By treatment with bromine in acetic acid solution it yields monobrom-elaterin,  $C_{24}H_{37}BrO_6$ . By acetylation in the usual manner it yields a di-acetyl derivative. By heating with dilute alcohol and sulphuric acid it breaks up into acetic acid and elateridin,  $C_{22}H_{36}O_5$ . By heating elaterin with dilute alkali and then treating with dilute hydrochloric acid, elaterinic acid,  $C_{22}H_{34}O_6$ , results.

**Linseed.**—Rustung ("Ann. de Ph. de Louvain"), having made many examinations of genuine linseed and linseed cake, has never found starch present. M. Ranwez confirms this, and states that he has for some years had samples of linseed examined microscopically by students, and never had the presence of starch reported. The cellular membrane of certain tissue of the seeds colours blue with iodine, but this should not be confounded with that given by starch grains. Linseed meal and linseed cake often show the presence of starch, but it is due to the admixture of foreign seeds.

**Cinchona-bark from German East Africa.**—About the middle of last July a preliminary collection of bark from the oldest plants in the cinchona-gardens at Amani was made, and the 20 kilos. of bark derived from a hybrid of *C. Ledgeriana* and *C. succirubra* was submitted for examination to Dr. Oswald Hesse, director of the quinine-factory in Feuerbach, near Stuttgart. One sample yielded 6.47 per cent. of quinine sulphate, and the second 6.8 per cent., with an additional 1.93 per cent. of secondary alkaloids in which no cinchonidine could be found. The secondary alkaloids in the first sample were not examined. The trees were grown at a height of about 3,000 ft.

**Chemical Composition of Koch's Bacillus.**—Messrs. Jules Auclair and Louis Paris publish in the "Comptes Rendus" (1907, 144, 278) some results they have obtained in analysing this bacillus with a view to determining to which constituent its resistance to the action of acids is due. They find that it contains 33.8 per cent. of fatty and waxy matters, consisting of at least four different substances. These and the protoplasm and cellulose of the bacillus are all coloured by Ehrlich's reagent, and consequently the acid resistance of the bacillus is common to each of these proximate principles. The gummy matter which forms the zoogloea of the bacillus is insoluble in organic solvents, swells in contact with caustic potash, and is coloured blue by sulphuric acid and iodine, whence it appears to be a hydrocellulose, and may be formed at the expense of the glucose or other carbohydrates of low molecular weight contained in the bouillon on which the bacillus is grown.

**Nomenclature of the Proteins.**—The Council of the Chemical Society has made certain recommendations on this subject. The following is a much-abbreviated abstract of the recommendations, which are published in the "Proceedings," 23, 321, p. 55, to which reference should be made:

- I. The word *Proteid* should be abolished.
- II. The word *Protein* is recommended instead, and the term *Albuminoid* should be regarded as a synonym of protein.
- III. The sub-classes should be as follows:
  1. *Protamines*—e.g., salmine and sturine from fish-sperm.
  2. *Histones*, which probably pass gradually into protamines; precipitability by ammonia is one of their distinguishing features.
  3. *Albumins*—e.g., egg-albumin and serum-albumin.
  4. *Globulins* are proteins which are more readily "salted out" of solution than the albumins—e.g., serum globulin, fibrinogen, fibrin, and myosin.
  5. *Sclero-proteins*.—This new word takes the place of "albuminoid": includes such substances as gelatin and keratin.
  6. *Phospho-proteins*—e.g., vitellin and caseinogen with its derivative casein.
  7. *Conjugated Proteins* are substances in which the protein molecule is united to a "prosthetic group." The principal subdivisions are: (a) Nucleo-proteins, (b) gluco-proteins (e.g., mucin), (c) chemo-proteins (e.g., hæmoglobin).
  8. *Derivatives of Proteins* should be classified as follows: (a) Meta-proteins, (b) proteoses, (c) peptones, and (d) polypeptides.
- IV. The term *caseinogen* should be used for the principal protein in milk, and *casein* for its derivative resulting from the action of rennet.
- V. The two principal proteins of the muscle plasma should be termed *paramyosinogen* and *myosinogen*; the term *soluble myosin* should take the place of v. Fürth's soluble myogen-fibrin; the term *myosin* should be restricted to the final product formed during *rigor mortis*.



**TO CORRESPONDENTS.**—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

**BUSINESS INFORMATION.**—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

### Protected Prices.

SIR,—I was very sorry to read Messrs. Elliman's letter, in which they are inclined to question the policy of still protecting their goods. I sincerely hope that in their consideration of the matter they will not forget the injury they would do the large majority of the trade, who loyally support them, by allowing their embrocation to be sold at any price the seller likes. I do not believe for a moment that such a step would pay them, for the man who now tries to sell another article in the place of theirs would then try still harder to do so, while those who now loyally support them would be bound in self-defence to sell something that yielded a better profit. I am afraid, too, that if they took the step other makers who now protect would follow suit. While I never exhibit the showcards, circulate the handbills, or speak in favour of unprotected articles, I always supply protected ones when asked for, without demur. I maintain that the proprietors of these articles have created the demand by expensive advertising, and they are entitled to the fruits of it. While I do not consider the profit on Bile Beans, Peps, and Zambuk remunerative, I remember the great demand created by the advertising, and always supply without hesitation. I do not even keep the imitation preparations of "pine" that are supplied by nearly every maker of lozenges. I prefer the motto "Do to others as you would that they should do to you" to the more modern and up-to-date one "Never mind who sinks, so long as I swim."

A FIRM BELIEVER IN PROTECTED ARTICLES. (68/90.)

SIR,—Does it pay a manufacturer to protect the selling-price of a proprietary? This is a question I think every manufacturer has a right to ask. As I am an average chemist, I will give quite frankly what has actually taken place in my own business. If every chemist does the same I do not think the manufacturers can be in much doubt about the matter. To take concrete examples. Scott's emulsion: When we had to sell this at a loss we never sold a bottle without a struggle, and pushed our own emulsion in season and out of season, with the result that we sold 48% worth of our own emulsion that year. Since Scott's has been on the P.A.T.A., although we still put up our emulsion, when Scott's is asked for it is not worth our while to spend time talking about ours; besides, as our bottle is twice the size of Scott's, we get two profits off Scott's to one off our own; and another year I am seriously considering the question whether it is worth while to put ours up at all. Take another instance—Doan's pills: When we were selling these at 2s. 6d. we were getting a very fair profit on them, and had no idea of putting up anything to recommend in place. Then they got cut to 2s. 2d., when they no longer paid. We then put up a backache-and-kidney mixture; last year we sold 2½ gross. We sold far more at 2s. 6d. than we have ever done since. Take Seigel's syrup: When that went on the P.A.T.A. I was just about to put up a digestive syrup, but did not go on with it; now that we are back to the old unsatisfactory state of things I am going to put up this preparation referred to. If every chemist adopted this policy I think the manufacturers would soon find whether

it pays or not to give the retailer an interest in what he sells.

The retailers by concerted action have the power in their own hands if they will only use it; part of that power is to play the game with those who do give a reasonable profit.

Truly yours,

SELF HELP. (73/23.)

#### Pepsin-assay.

SIR,—The determination of peptone in meat-extracts is not quite the same as the determination of peptone in a solution of peptonised albumen; in the former the peptone, on adding the bromine, coagulates readily, and gives a flocculent precipitate which is easily separated; but in the latter the peptone only coagulates with difficulty, and we have found that the more highly the albumen is peptonised the greater is the amount unprecipitated—that is, the peptone from a poor pepsin is more completely precipitated than the peptone produced by a good pepsin. Mr. Tankard seems to think that our method involves the use of the Kjeldahl process. It does not.

We are,

Yours faithfully,

WM. B. COWIE.

WILLIAM DICKSON.

Edinburgh, March 20.

#### From Germany.

SIR,—Re correspondence "A Fly Story," issue of March 9, p. 398. I can inform you that in German slaughter-houses the only recognised method of keeping out flies consists of keeping up a good draught. Many experiments have been made, but it has been proved that nothing is so deterrent to the fly as a really stiff current of air.

Re "First Lady Pharmacist in Germany," p. 359, same issue. The "original" first lady to enter the pharmaceutical profession in Germany was Fräulein Meub, daughter of the Royal Court baker in Carlsruhe. She entered the pharmacy in Waldkirch, near Freiburg, in autumn 1899 (a note on this appeared in the *C. & D.*, September 16, 1899, p. 482). passed her Assistant examination with me in September 1901, studied at the Polytechnicum in Carlsruhe 1904-6 (partly under me), passed her State examination in May 1906, and married very shortly afterwards an apotheker to act as his colleague in the newly purchased business (capital subscribed by both).

Yours faithfully,

G. P. FORRESTER, Kgl. Apotheker.

#### Are Chemist's Prejudiced.

SIR,—I have just received a letter from a customer of mine which contains statements by a chemist which seem to me worthy of serious comment if his views at all represent those of other chemists. My correspondent was unknown to me until she was induced by a friend to lay her very trying case before me, after ten years of suffering and constant medical treatment. My diagnosis rather surprised her, but she very sensibly followed my advice, with happy results. Now she is evidently trying to do me good service. She says:

When I was away this time I had a long argument with a chemist about your work. He told me that it was quite impossible for you to write books and make toilet-preparations, and that you had simply sold your name to some chemist as an advertisement. He was greatly astonished when I informed him that I had received personal attention at your hands and that you had done me more good than any specialist. I strongly urged him to stock your goods, promising him if he did so that I would send him customers.

It grieves me that even one chemist can hold and express such unwarrantable and libellous views about me after four years of straightforward trading, during which the facts as to my business have been accessible to all concerned, and especially so to chemists.

It is not impossible for a woman to write novels and make toilet-preparations. I have done it year after year. The one occupation is the most perfect conceivable complement to the other. A competent novelist who does not intend to become stodgy will not write for more than one to two hours daily, and even then will soon be played out unless the exhausting strain of imaginative work is made good by concentration on some other interest. To turn from par-

ticularly ageing labour to a quiet laboratory, wherein one can become absorbed in fascinating experiments in quest of weapons with which to combat dreaded wrinkles and withered locks, is delicious and revitalising. Also, if you have brains enough to write novels, you gain more practical knowledge than any professional training will bring you; in short, you get there. Whether you turn this knowledge as well as your pen-toil to commercial account is a small matter indeed, except to yourself. . . . Perhaps it was natural that many who did not know me should at first imagine that someone else was working the business in my name; but after four years of trading from my own home, during which I have done all that a woman reasonably could do to demonstrate my personal control of and interest in the preparations I offer to the public, it is a cruel and thoughtless libel to suggest that I have sold my name to some chemist as an advertisement. The simple truth is that every one of my preparations was originated by me, and (excepting the soap, Marquissettes, and Papier Marquise, which in the nature of things I could not produce myself) all were made at first by my own hands. . . . I have sold my goods to all who prefer to deal privately with me; and, although I am still a busy writer and do not invite clients to call on me, I have received hundreds of strangers who wished to consult me personally. What more could a woman in my position do to prove that she is indeed trading in her own things and on her own behalf? Yet I am constantly made aware of the most preposterous rumours about myself and my wares, which hitherto I have thought due to careless tattlers or interested rivals, and passed by with a smile. Only last week I received a long tirade from an old-established specialist, bitterly reproaching me for telling my clients the truth, and pointing out that I should "live and let live." I agree with the principle, but I hope it will never make me silent on what I know to be injurious to trustful clients. But to find a chemist so ill-informed or biased is a painful shock. . . . I do not expect or ask favour from chemists or customers, but I do hope there are not many chemists so prejudiced against me as the one my correspondent quotes. It seems to me the most natural thing in the world that a woman should be able to produce the most effective toilet-preparations; she needs them so much.

Yours faithfully,

JOHN STRANGE WINTER  
(Henrietta E. V. Stannard).

#### Legal Queries.

See the "C. & D. Diary, 1907," for much legal information as to all trade matters. In any circumstance not covered by the articles therein, state the case explicitly with all particulars and submit to the Editor.

*Somath* (71/7).—See our *Diary*, p. 263, for the fees payable on registration of a company. It will not cost nearly so much as you have been told to register a small company. See the notes on company law, *Diary*, p. 230, for other matters.

Z. Y. X. (74/63).—Hall's wine and coca-wine may be sold by anybody who holds an "off" wine-licence.

#### Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

A. E. (73/47).—The YELLOW SPOTS ON CHEEKS from which your wife suffers appear from your description to be *Chloasma*, an affection resembling freckles and due to excessive pigmentation of the skin. It is usually associated with pregnancy, and may follow it, as in this case, or arise from uterine or hepatic trouble, which if present should be treated. In any case the following ointment, recommended by Unna, should be applied every night:

|                             |     |     |         |
|-----------------------------|-----|-----|---------|
| Adipis lanæ anhydr.         | ... | ... | 3j.     |
| Vaselini                    | ... | ... | 3ij.    |
| Hydrogen. perox. (10 vols.) | ... | ... | 3ss.    |
| Hydrarg. perchlor.          | ... | ... | gr. j.  |
| Bismuth. chloridi           | ... | ... | gr. xx. |

Ft. ung.

C. F. A. (74/43).—You do not send your name.

**J. H. M. (57/29).**—BOOKS ON WILD FLOWERS.—John's "Flowers of the Field," 7s. 6d. (S.P.C.K.); Pratt's "Wild Flowers," two vols., 8s. (S.P.C.K.); Hulme's "Familiar Wild Flowers," eight vols., 3s. 6d. each (Cassell).

**Stamina (56/42).**—(1) SAL SODA is sodium carbonate—washing-soda. (2) WASHABLE DISTEMPER.—See *C. & D.*, March 16, p. 431.

**W. H. (74/71).**—ROBIN'S GLYCEROPHOSPHATES.—Dr. Albert Robin, of Paris, introduced the glycerophosphates into medicine, but he has not, so far as we know, published a formula for a syrup. The following is the B.P.C. formula:

Rub  $\frac{1}{4}$  oz. of cudbear in 10 oz. of distilled water for ten minutes, filter, and in the filtrate dissolve—

|                                                             |     |            |
|-------------------------------------------------------------|-----|------------|
| Calcium glycerophosphate                                    | ... | 160 grains |
| Potassium, sodium, and magnesium glycerophosphates, of each | ... | 80 grains  |
| Iron glycerophosphate                                       | ... | 40 grains  |
| Citric acid                                                 | ... | 30 grains  |
| Caffeine citrate                                            | ... | 80 grains  |
| Strychnine hydrochloride                                    | ... | 2 grains   |
| Sugar                                                       | ... | 14 oz.     |

Then add—

|                  |     |           |
|------------------|-----|-----------|
| Chloroform       | ... | 20 minims |
| Rectified spirit | ... | 40 minims |
| Water to         | ... | 20 oz.    |

**Rats (74/66).**—The rat-paste will keep well enough.

**J. G. (68/6).**—VETERINARY REMEDIES for puffed tendons.—The sample in the form of an ointment is made from a recipe as the following (the clay poultice of the United States Pharmacopœia):

|                       |     |           |
|-----------------------|-----|-----------|
| Kaolin, No. 80 powder | ... | 577 grams |
| Boric acid            | ... | 45 grams  |
| Thymol                | ... | 0.5 gram  |
| Methyl salicylate     | ... | 2 grams   |
| Oil of peppermint     | ... | 0.5 gram  |
| Glycerin              | ... | 375 grams |

Heat the kaolin in a suitable vessel at 100° C. for an hour; mix it intimately with the boric acid and then incorporate the mixture thoroughly with the glycerin; finally add the thymol which has been dissolved in the methyl salicylate and the oil of peppermint, and make a homogeneous mass.

The liquid remedy is a cantharides preparation made with or containing wood naphtha.

**Scotia (59/66).**—In such cases as you mention it is the better plan to put the best construction on the doings of the "other" chemist. He may have had a small quantity of cocaine nitras in stock, but was expecting his customer's prescription for eye-drops, and so could not supply you with the drug. He may also have a source of supply nearer at hand than you imagine. When you have exhausted all excuses that a generous mind can suggest, it will be time to insinuate that your fellow-chemist used cocaine hydrochloras with argent. nitras in the eye-drops.

**J. P. (69/54).**—BLOOD-TONIC for sale in pint bottles and containing no scheduled poison:

|                        |     |       |
|------------------------|-----|-------|
| Syr. ferri phosph. co. | ... | 3iss. |
| Aq. chloroformi        | ... | 3v.   |
| Aq. aurantii           | ... | 3j.   |
| Aquam ad               | ... | 3xx.  |

Dose: A wineglassful after meals.

**Booco (63/34).**—We cannot undertake to analyse the sample, especially as your only object is imitation.

**Baron (64/13).**—COMPOUND HEROIN JELLY:

|                  |     |         |
|------------------|-----|---------|
| Heroin           | ... | gr. vj. |
| Terpini hydratis | ... | 3ij.    |
| Aquæ             | ... | 3viiss. |
| Gelatini         | ... | 3j.     |
| Glycerini        | ... | 3xviij. |
| Tinct. tolu.     | ... | 3j.     |
| Spt. rectificat. | ... | 3ij.    |
| Syr. pruni virg. | ... | 3j.     |

Soak the gelatin in 20 oz. of water; when soft add the glycerin, and dissolve by the heat of a water-bath; skim. Dissolve the heroin and terpene hydrate in 10 oz. of water to which have been added the tincture, spirit, and syrup, and bring up the weight to 27 oz. with warm water. Strain, and pour into 2-oz. w.m. bottles.

Dose for adults: 3j. to 3ij. three times a day.

**J. P. G. (55/13),** writing from Port Elizabeth, desires information about a liquid that is supplied for preserving the gut of tennis racquets. There, "J. P. G." informs us, are two liquids: one a kind of varnish which is applied when the racquet is in use, and the other used as a preservative in the winter time. Will some of our readers give information from their experience?

**T. H. (70/33).**—DRY SHAMPOO.—The sample you send is prepared from a recipe like this:

|                 |     |       |
|-----------------|-----|-------|
| Tinct. quillaie | ... | 3j.   |
| Liq. ammoniæ    | ... | 3ij.  |
| Aq. coloniensis | ... | 3j.   |
| Spt. rectific.  | ... | 3ij.  |
| Aquæ            | ... | 3xij. |

Misce.

**Tooth (72/69).**—The book you mention is out of print; for others on the same subject see *C. & D. Diary*, 1906.

**Manufacturer (Victoria) (55/11).**—The HERB-BEER EXTRACT must be prepared with aseptic precautions. Probably you exposed the liquid to the air unnecessarily before bottling. As a security, heat the clear liquid to boiling just before bottling, and see that the bottles and corks are freed from germs before use. The quantity of salicylic acid in the formula is sufficient and ought not to be increased.

**W. (70/52).**—UNGUENTUM CASEINI.—Unna's formula for this is as follows:

|                                           |     |             |
|-------------------------------------------|-----|-------------|
| Dried casein                              | ... | 14 parts    |
| Alkali (pot. hydrate 4, sodium hydrate 1) | ... | 0.43 part   |
| Glycerin                                  | ... | 7 parts     |
| Vaseline                                  | ... | 21 parts    |
| Antiseptic                                | ... | 1 part      |
| Water                                     | ... | 56.57 parts |

**Ritania (70/70).**—BOOKS ON AGRICULTURAL CHEMISTRY AND MINERALOGY.—See bibliography in *C. & D. Diary*, 1906.

**Salot (73/38).**—The ECZEMA-CURE, which has been used with remarkable effect, seems to consist of equal parts of camphorated oil and glycerin. It is probably a domestic remedy which has happened to "touch the spot" in a particular instance, and so been credited with marvellous powers.

**A. B. M. (68/67).**—RESTORING ENGRAVINGS.—We described the process in the *C. & D.*, July 16, 1904, p. 98, but if your customer's engravings are really valuable it would be much better to entrust them to a professional. We do not reply to these inquiries by post.

**J. L. R. (Barkly) (67/18).**—We have asked the filter-makers to send you the particulars you ask.

**A. S. (69/25).**—There is no book published on the mixing of synthetic perfumes, and no book dealing with the subject half so fully as "Pharmaceutical Formulas."

**M. S. (70/9).**—NON-POISONOUS NIT-OINTMENT.—See *C. & D.*, November 18, 1905, p. 814.

**J. S. (67/53).**—STARCH-GLOSS POWDER.—The only addition we can suggest is powdered tragacanth, about  $\frac{1}{4}$  per cent.

**Chemic (69/39).**—The WATER-SOFTENER appears to be sodium carbonate, but in the absence of any particulars of its uses we have not gone very deeply into the matter.

**J. J. C. (58/53).**—RHUBARB DRAUGHT.—The following recipe gives a mixture like your sample:

|                           |     |         |
|---------------------------|-----|---------|
| Pulv. rhei                | ... | 3iiss.  |
| Mag. carb. pond.          | ... | 3iss.   |
| Spt. ammon. arom.         | ... | 3ivvss. |
| Tinct. rhei co.           | ... | 3ix.    |
| Ess. menth. pip. (1 in 5) | ... | 3ij.    |
| Aquam ad                  | ... | 3xij.   |

Dose: 3iss.

Rhubarb has tonic as well as aperient and astringent properties.

**Graco (197/28).**—PHOTOGRAPHIC FORMULÆ.—When metol and quinol are mixed in a developing-solution a compound is formed which is much less soluble than either metol or quinol. It is not advantageous to add either glycerin or spirit to a developer, hence it follows that a 1-in-6 concentration is impracticable when metol and quinol are used in proportions needed for developing. The tones with combined toning and fixing bath are obtained blacker by increasing the gold chloride, and as this is the expensive ingredient you will need to decrease the size of the bottle. The directions should require the print to be left in until the requisite tone is obtained.

**Sodium (70/11).**—BOOKS ON FERTILISER-ANALYSIS.—See *C. & D.*, March 23, p. 467.

**H. P. D. B. (68/53).**—CORN-CURE.—Salicylic acid is the corn-cure *par excellence*. The substances used in the pre-salicylic days—liquor potassæ, cupri, acetas, iodine, and various acids—are poor remedial agents compared with salicylic acid. From this you will see that your request for something better cannot at present be complied with.

**SHOP-FITTINGS. SECOND-HAND FIXTURES.**—Chemists requiring additional fittings or opening new premises would find it to their advantage to write us for particulars and photographs; we have a large assortment of second-hand fittings at rock-bottom prices. **WALTER KNOWLES & CO., 83 VICTORIA STREET, LIVERPOOL.**

### REMEMBER.

The price is right, the paper right, the printing good; size of Handbills, roughly  $7\frac{1}{2}$  by  $5\frac{1}{2}$ ; printed with any wording you please.

5,000 4/6, 10,000 8/-, 20,000 15/-, carriage paid in England and Wales.

**MARTIN NEWWEY, 14 New St., Birmingham.**

**ELECTRO-SILVER PLATING.**—Please write for Price-List: our plating invariably gives long service and much satisfaction; prompt return of all work entrusted to us; free collection and delivery by our vans in London and Suburbs; carriage paid one way on country orders. **Idris & Co., Ltd., PLATING DEPT., 35-43 King's Road, St. Pancras, London, N.W.**

### AND YET IT IS SO.

It is hard to believe that, by a close study for 10 years of refined business-increasing notions, a brother pill-builder should be qualified to assist you to INCREASE YOUR BUSINESS in nett profit from £20 to £200 a year—and yet it is so. My proof is contained in free booklet and references ad lib. May I try to convince you?

*Bernard Slack*

319 High Street,  
WEST BROMWICH.

# Exchange Column—Bargains.

### TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.

No Advertisement inserted for less than 6d.

### FOR DISPOSAL.

#### BOOKS AND PERIODICALS.

**SECRET Remedies Analysed.**—Pamphlet showing ingredients of all prominently advertised patent medicines of every description; 7d. post free. **R. H. MARX, Bain Square, Dundee.**

**PHARMACOPEDIA,** 1904, 7s.; Watson Will's "Prescription-reading," 4s.; surplus apparatus, suit Minor student, cheap; "With the Flag to Pretoria, 30 parts, 8s.; "V.R.I.," 16 parts, 4s. 6d., unbound. **GOODALL, 190 Broadhurst Gardens, N.W.**

### FORMULÆ.

**ICE-CREAM Formulæ.**—I have the reputation of making the best ice-cream in the United States. I use no eggs, no gelatine, no cooking. My cream is rich, highly flavoured, smooth as velvet, heavy body. Ten gallons can be made in less than 20 minutes at a cost of 2s. per gal. Satisfaction guaranteed. Formulæ sent to any part of the world on receipt of remittance for 8s. **K. A. BACHMAN, Winona, Mississippi, U.S.A.**

### OPTICAL AND PHOTOGRAPHIC.

**EIGHT doz. Ilford whole plates,** good as new; what offers. **WALES, Hemsworth, Wakefield.**

**THE following cameras,** all practically new: '27s. 6d., "King"; 15s., "Briton"; 10s. 6d., "Mascot"; 8s. 6d., "Mascot"; 7s. 6d., "Briton"; 6s., "Briton"; the lot, carriage paid, 42s. **"CHEMIST," 377 Rotton Park Road, Birmingham.**

### PROPRIETARY ARTICLES.

**WHAT offers, Veno's cough seaweed tonic, Virol, Cassel's tablets?** **"CHEMIST," 144 Queen's Road, Hastings.**

**EN eau Horn and 20 other Horn's preparations;** half retail price or exchange. **BUDDIN, 26 London Road, Liverpool.**

**IRELLA gold paint, 6d. and 1s.;** Vivo furniture-polish, 3d. and 6d.; will exchange saleable patents. 75/40, Office of this Paper.

**IX 2s. Milo food, 5s. 6d.;** 1 2s. 6d. Dodd's kidney pills, 1s. 10d.; 2 2s. 3d. Pazo ointment, 3s.; 7 1s. Belton's Busy Bees, 3s. 6d.; 3 7d. ditto, 1s. 1d.; 2 1s. 1d. Hood's olive ointment, 1s. 4d.; 4 2s. 3d. Stuart's dyspepsia tablets, 6s.; 2 1s. pepsalia, 1s. 4d.; all or part carriage paid on receipt of P.O. **"CHEMIST," 377 Rotton Park Road, Birmingham.**

### SHARES.

**EVANS LESCHER & WEBB (LIM.)** 20 5-per-cent. preference shares; £5 10s. 206/9, Office of this Paper.

### SHOP FITTINGS.

**GLEDHILL'S "Invincible" coin-exhibiting till,** good as new; buying larger; cost 105s., cash price 50s., carriage forward. **FULLER, Chemist, Norwich.**

**TO a beginner or Chemist opening a high-class branch.**—Compulsory sale of the entire fittings, fixtures, and utensils of an elegant pharmacy will be sacrificed for cash; seen by appointment. Apply, **SCOTT, 57 Lower Clapton Road, London, N.E.**

### MISCELLANEOUS.

**FOR Sale.**—Soda-water machine, syphon filler, turn-over, good working order; also quantity of syphons; no reasonable offer refused, or will exchange for anything useful. 82 Broad Street, Hanley.

### WANTED.

**OXYGEN cylinders,** also pressure-gauge. "L," 18 Formosa Street, W.

**PLATINUM,** disused, for cash. **P. ROWSELL, 11 Crebor Street, Dulwich.**

**EMPTY ess. coppers and leads;** best price given. 204/5, Office of this Paper.

**MINOR books, chemists' books,** for cash or exchange. **GOWER, Bookseller, Waterloo, Liverpool.**

**SEVERAL wall showcases,** about 6 ft. by 4 ft., and one 9 ft. by 2 ft. 6 in. **WEISS & FOWKE, Stafford.**

**ABOUT 8 or 10 doz. 1 pint N.M. and W.M. shop-rounds,** ointment-jars, oil-bottles, pill-mortars, etc. **SAMPSON, Chemist, Bath.**

**P. J. FORMULÆ,** latest; optician's full trial set, good condition; lowest cash price. **"CHEMISTS," 56 Linaker Street, Southport.**

**SECOND-HAND copies,** in good condition: Lowson's "Botany," Newth's "Chemistry," Muter's "Analysis," Greenish's "Materia Medica," Ince's "Latin Grammar." Lowest price to **T. CHARLES, Chemist, Burslem, Staffs.**

## Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

### Wednesday, April 3.

*Glasgow Optical Society*, Blythwood Hotel, 320 Argyle Street, at 8 P.M. Mr. H. B. Doleman on "Optical Queries."

### Thursday, April 4.

*North-East Lancashire Chemists' Association*. Whist-drive at Blackburn.

*Great Yarmouth Pharmaceutical Association*, 156 King Street, at 8 P.M. Annual meeting and election of officers.

*Plymouth, Devonport, Stonehouse and District Chemists' Association*, in the Library, 7 Whimble Street, at 8.30 P.M. Meeting of Junior Section. Lecture, Mr. H. Noel Header on "The External Features of Plants."

*Chemists' Assistants' Association*, 73 Newman Street, W., at 8.30 P.M. Mr. F. W. Crossley-Holland on "Pharmacy in the East of France."

### Friday, April 5.

*Edinburgh Chemists', Assistants', and Apprentices' Association*. Annual supper.

**FEDERATION OF PHARMACEUTICAL ASSOCIATIONS.**—A special meeting will be held on Wednesday, May 8, in the Council Chamber of the Royal Horticultural Society, Royal Horticultural Hall, Victoria, London, when, after a private meeting of the delegates, Mr. Cyril H. Kirby, solicitor, London, will give an address on "Some Recent Legislation affecting Chemists."

**FEDERATION OF WEST-RIDING CHEMISTS' ASSOCIATIONS.**—It has been decided to hold a dinner at the Grand Restaurant, Leeds, on April 16, at 7.30 P.M. Tickets 3s. 6d. each. Members of Associations affiliated with the W.R. Federation who have not yet promised to attend, and any other friends who would like to be present are invited to send their names to the President, Mr. Hanson, Queensbury, Bradford, or to the Hon. Secretaries, Mr. Broadhead (Batley) and Mr. Pickard (Ossett).

## The Week's Poisonings.

**EIGHT** at least of the nineteen fatalities by poisoning during the past week were caused by unscheduled poisons. No fewer than five deaths were due to hydrochloric acid, which is becoming much more of a public danger (owing to its indiscriminate sale) than carbolic acid ever was. In two instances the exact cause of death has not yet been decided. These are the cases of a young man found poisoned near Ancaster, and Ernest Lawrence (22), of Hall Park, who died from gastro-intestinal irritation, brought on, in the opinion of the house physician at St. Mary's Hospital, by some slow poison. At the inquest on Lawrence it was stated that he had taken some pills to relieve a pain in his back, and the inquiry was adjourned to allow an analysis of the contents of the stomach and of the remainder of the pills.—Dr. Robert Sterling, of Innisnag, co. Kilkenny, was found dead in the grounds of a hydropathic institution, with a bottle of poison (kind not stated) by his side.—Two suicides were committed with laudanum. It was taken by James Davidson, of Barnsley, and by Mrs. Winnie Hamilton, of Battersea.—Two cases of suicide by carbolic are reported, the victims being Eliza Holmes, of Sandown, Isle of Wight, and Jessie May Carter, of Forest Gate, E.—Annie Dunn, wife of a farmer near Barnstaple, poisoned herself with arsenic.—Dr. H. W. Payne Makeham, of New Cross Road, London, S.E., died from an overdose of morphine taken to relieve pain.—Charles Wetherstone (31), of Camberwell, committed suicide with oxalic acid.—James Robinson (55), a Preston chipped-potato dealer, deliberately drank a poisonous liniment and died from the effects.—Besides spirit of salt, the unscheduled poisons salt of lemon, liquid ammonia, and potassium bichromate caused one death each. The last named was taken by Thomas John Thorne (38), a retired publican at Brighton; the ammonia was taken in inadvertence by Joseph Pickles (65), a Batley spinner; while the salt of lemon was taken by Elizabeth Askey Westcott (42), the wife of a Birkenhead publican.—In the spirit-of-salt cases, "suicide during temporary insanity" was recorded, at the inquests on Frank John Drummond (38), a Clapham engineer, found dead on the cliffs near Brighton;

on Rebecca Eliza Mullany (63), of St. Pancras; and on William Francis, an insurance agent, at Grays. The coroner's jury found that William Futter (60), who was found unconscious on Parliament-hill Fields, had committed suicide with hydrochloric acid, but the evidence was not sufficient to show the state of his mind at the time. Alexander Robertson Ramsey, an unqualified chemist, was called to give evidence before Mr. E. A. Gibson, the Manchester City Coroner, on March 25, relative to the death of Jonathan Critchley, a beerhouse-keeper, who had committed suicide by drinking spirit of salt. In reply to the Coroner, Mr. Ramsey said he was not qualified; he was manager of Mr. R. Needham's shop at 91a City Road, Hulme. The deceased came in for half a pint of spirit of salt and said it was for soldering purposes. The man appeared sober and rational and brought a medicine-bottle with him. He labelled the bottle "Poison," with the name of the firm. The Coroner: Did you enter the name of the purchaser in the books? No; I had never seen the man before; we do not enter names. We do not deal in scheduled poisons; they are sold at another shop. We only keep poisons for wholesale purposes. The Coroner: That is one way of evading the law. The jury returned a verdict of *felo de se*.

## Italian Items.

**SYMPATHY WITH THE STRIKERS.**—The Tuscan branch of the Italian Pharmaceutical Society met recently to consider the plight of their Palermitan and Neapolitan *confrères*, and passed a resolution to the effect that they viewed with regret the insupportable grievances which necessitated a strike, and assuring them of their heartfelt sympathy in the matter.

**ITALIAN SOAP-TRADE.**—The "Bulletin" of the French Chamber of Commerce at Milan contains an article on the import soap-trade of Italy, giving several interesting points as regards the Custom House regulations, which are divided under three headings: common soap, scented soap, and glycerin soap. Under the first heading are included all the ordinary soaps for industrial and domestic purposes, provided they are unscented and that the bars of the tablets are cut or moulded with sharp corners. This point is most important, because the same quality of soap, which, with sharp corners, would pass as common, is dutiable as scented soap if the corners are rounded. And as the duty leviable on scented soap is five times larger than that on common soap, the difference between the two charges is too large to be disregarded. The following are the duties payable: Common soap, 2s. 10d. per cwt. (7 lire per 100 kilos.); scented soap, 14s. 2½d. per cwt. (35 lire per 100 kilos.); glycerin soap, 1l. 4s. 5d. per cwt. (60 lire per 100 kilos.). Business in imported soap is mostly carried on on a small scale, as there are few large buyers, but numerous small retailers. Such a *clientèle* requires the personal attention of a good agent to push the goods of the firm which he represents. France heads the list of importers of common soap into Italy. England stands second, closely followed by Germany. Germany heads the imports of scented soap, but the quantity is not great. The importation of glycerin soap is unimportant, not being more than 100 quintals a year.

## WHERE TO STUDY.

The following educational institutions are advertising in this issue:

South London School of Pharmacy, 325 Kennington Road, London, S.E.

Westminster College of Chemistry and Pharmacy, Trinity Square, Borough, S.E.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, London, S.E.

London College of Chemistry, Pharmacy, and Botany, 323 Clapham Road, London, S.W.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Liverpool School of Pharmacy, 6 Sandon Terrace, Upper Duke Street, Liverpool.

Birmingham and Midland College of Chemistry, Pharmacy, and Botany, 45 Newhall Street, Birmingham.

Bath and West of England College of Chemistry and Pharmacy, Bath.

Glasgow School of Pharmacy, 180 West Regent Street, Glasgow.